OVEN

BASIC: BQ1Q4T090
MODEL: BQ1VQ6T012
MODEL CODE : BQ1VQ6T012/XEF

SERVICE Manual

OVEN



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1. Precaution

Follow these special safety precautions.

1-1 Safety precautions (⚠)

1. All repairs should be done in accordance with the procedures described in this manual. This product complies with Federal Performance Standard 21 CFR Subchapter J(DHHS).
2. Check all grounds.
3. Do not power the OVEN from a “2 - prong” AC cord. Be sure that all of the built - in protective devices are replaced. Restore any missing protective shields.
4. When reinstalling the chassis and its assemblies, be sure to restore all protective devices including nonmetallic control knobs and compartment covers.
5. Make sure that there are no cabinet openings through which people --particularly children --might insert objects and contact dangerous voltages.
6. Service technicians should remove their watches while repairing an OVEN.
7. Design Alteration Warning:
   Use exact replacement parts only, i.e., only those that are specified in the drawings and parts lists of this manual. Never alter or add to the mechanical or electrical design of the OVEN. Any design changes or additions will void the manufacturer’s warranty. Always unplug the unit’s AC power cord from the AC power source before attempting to remove or reinstall any component or assembly.
8. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
9. Some semiconductor (“solid state”) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs). Examples include integrated circuits and field-effect transistors. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground.
10. Always connect a test instrument’s ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument’s ground lead last.
11. Components that are critical for safety are indicated in the circuit diagram by shading, ⚠ or ⚡ .
12. Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

NOTE: Connect the oven to a 25 A.
When connecting the oven to a 16 A,
make sure that circuit breaker can operate.

13. Never touch any circuit wiring with your hand nor with uninsulated tool during operation.
14. For your safety, wear gloves on your hands.
15. Remove the all water from water-tank and Steam generator, before repairing the oven set.

2. Specifications

2-1 Features

		BASIC MODEL Built In Oven	NEW MODEL Built In Oven
Model Name		BQ1Q4T090	BQ1VQ6T012
Model Type Install		Single Built-in	Single Built-in
Design		GEO	GEO
Main sales point		Dual cook	Dual cook
Oven Features			
Cavity Interior		Pyro Lytic Coating	Pyro Lytic Coating
Oven Colors		STSS	STSS
Oven Doors (D: double, T: triple, Q: quadruple)		Q	Q
Door Opening		Drop Down	Drop Down
Interior Lamp		1(Halogen)	2(Halogen)
Interior Lights	position	Back/Side	Back/Side
Control Method(Oven)		Tact Button & Dial	Tact & Touch & Dial
	Display	2 Layer LED	2 Layer LED
Cleaning Method	Oven	Steam & Self	Steam & Self & Descaling
	Heater	Drop Down	Fixed
Electric Features			
Oven Temp Ranges	- Single	40~300 °C 300 °C: Grill only	40~270 °C 270 °C: Grill only
	- Upper or Lower	170~250 °C	170~250 °C
Grill Heater (In/Out)		1600W/1100W	1600W/1100W
Bottom Heater		1100W	1100W
Convection Heater (Upper/Lower)		1200W/1200W	1200W/1200W
Energy Class		A/A/A	A/A/A
Oven Function			
Number of Functions		11	15
Single Mode	1. Convection	Yes	Yes
	2. Top heat + convection	Yes	Yes
	3. Conventional	Yes	Yes
	4. Large Grill	Yes	Yes
	5. Small Grill	Yes	Yes
	6. Bottom + convection	Yes	Yes
	7. Steam cook	-	Yes
	6. Steam assist cook	-	Yes

2-1 Features

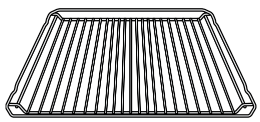
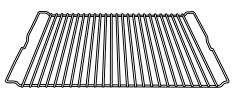
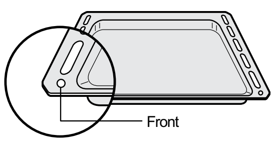
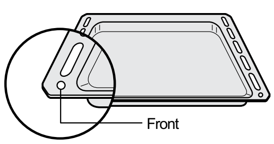
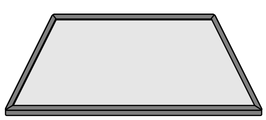
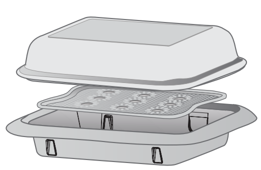
		BASIC MODEL Built In Oven	NEW MODEL Built In Oven
UPPER Mode	1. Convection	Yes	Yes
	2. Top heat + convection	Yes	Yes
	3. Large grill	Yes	Yes
LOWER Mode	1. Convection	Yes	Yes
	2. Bottom heat + convection	Yes	Yes
	3. Steam cook	-	Yes
	4. Steam assist cook	-	Yes
Control Features			
Clock		Yes	Yes
Child Safety Lock		Yes	Yes (Hidden)
Sound On/Off		Yes (Hidden)	Yes (Hidden)
Count Timer		Yes	Yes
Cook Time		Yes	Yes
End Time		Yes	Yes
Oven Temp		Yes	Yes
Steam Cleaning		Yes	Yes
Self Cleaning		Yes	Yes
Language Option		No	No
Light On/Off		Yes	Yes
Sound		Smart buzzer	Smart buzzer
Equipment Supplied			
Multi spit		No	No
Barbecue spit		YES	No
Square Baking Tray		2	2
Square Wire Rack		1	2

2-2 Specification

Specifications		BASIC	NEWMODEL
Power source		230V 50Hz, AC	230V 50Hz, AC
Dimension (W x H x D)	Outside	595 x 595 x 566mm	595 x 595 x 566mm
	Cavity	440 x 365 x 405mm	440 x 365 x 405mm
Shipping weight		Net 47Kg, Gross 52Kg	Net 49Kg, Gross 55Kg

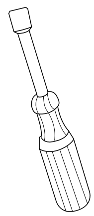
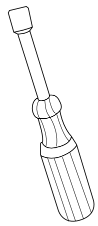
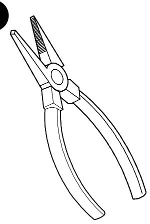
2-3 Accessory

The following accessories are provided with your oven.

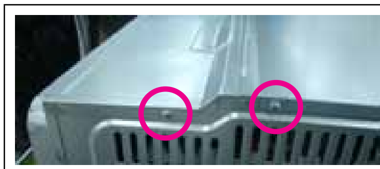
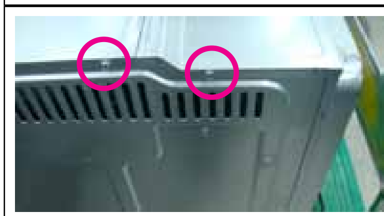
	Description	Code No.	Q'ty
	RACK-WIRE	DG59-00001A	1
	RACK-WIRE ROAST	DG59-00004A	1
	TRAY-BAKING A	DG63-00012A	1
	TRAY-BAKING B	DG63-00011A	1
	ASSY-PARTITION	DG97-00015A	1
	STEAM-GLASS STEAM-TRAY SUB STEAM-TRAY	DG01-00010A DG63-00246A DG63-00242A	1

3. Disassembly and Reassembly

3-1 Tools for Removal and Reassembly

Tool	
1 	**1.** Tool : Nut Driver **2.** Type : 7mm **3.** Remarks : Heater bracket Nut
2 	**1.** Tool : Nut Driver **2.** Type : 9mm **3.** Remarks : Convection Fan Nut
3 	**1.** Tool : Longnose **2.** Remarks : Tube Clamp

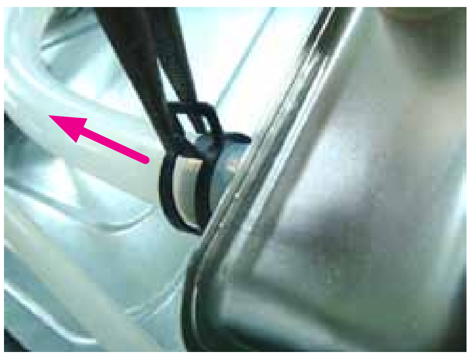
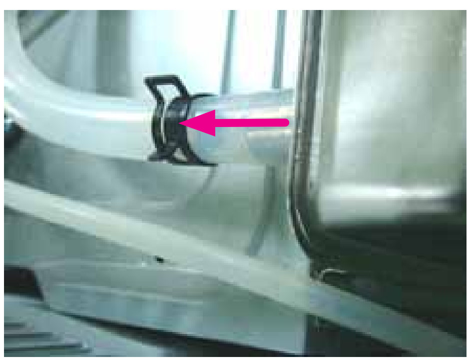
3-2 Replacement of Case upper & Cover back

  	* You must remove it before the repair

3. Disassembly and Reassembly

3-3 Replacement the Tube

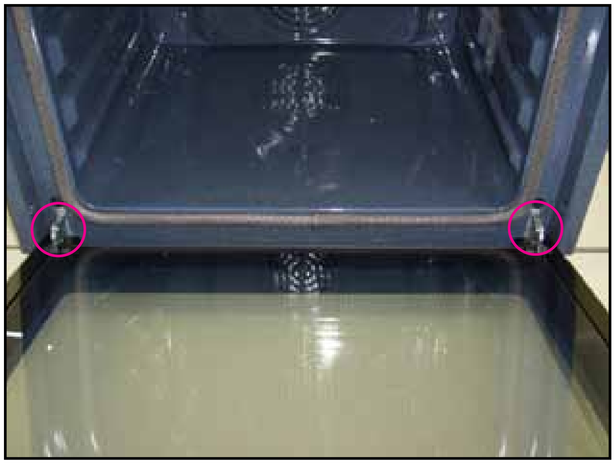
The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Tube		**1.** Prepare long-nose to remove the Tube clamp.
		**2.** Grab the Tube clamp with long-nose.
		**3.** remove the Tube clamp.
		**4.** remove the Tube.

3. Disassembly and Reassembly

3-4 Replacement of Door Assembly

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Door Assembly	 	**1.** Turn over the clips of both hinges.
		**2.** With both hands, grasp the middle sides of the oven door. **3.** Rotate the door by approx. 70degree until the hinges can be taken out completely from the hinges holes.

3-5 Replacement of Door Glass

The Assembly is reverse order of disjointing.

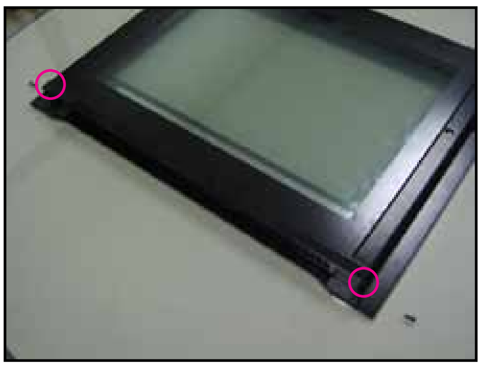
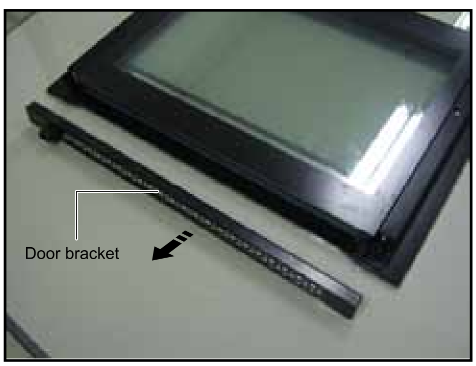
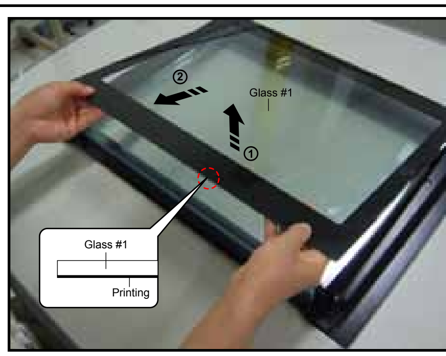
WARNING

Whenever the door is separated from the oven, the clips should always be turned over.

When the door is mounted, if some of the parts (Door glass or other parts) are removed from the door, it can cause injury due to sheet.

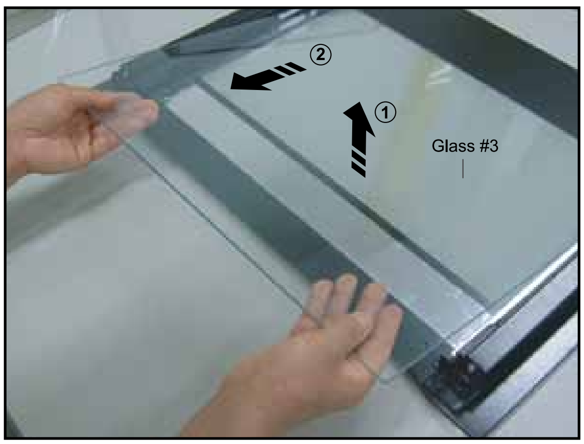
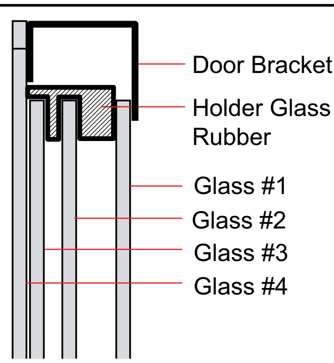
ATTENTION

The glass may break if you use force especially on the edges of the front sheet.

Parts	Explaination Photo	Explaination
Door Glass		**1.** Remove the two screws of the left and right sides of the door.
		**2.** Take off the door bracket.
		**3.** Detach the inner glass #1 (number 1) from the door. * When assembly the inner glass#1, put printing to direction below.

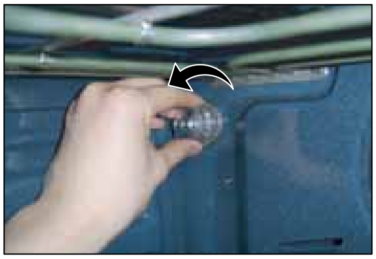
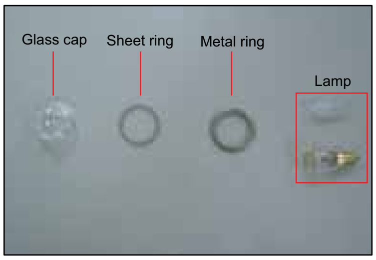
3-5 Replacement of Door Glass (Continued)

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Door Glass	  	**4.** Detach the inner glass #2 and spring-brackets from the door.

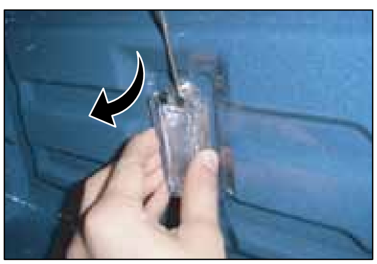
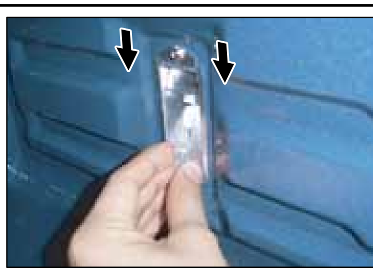
3-6 Replacement of the rear oven Lamp Bulb

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Lamp Bulb	 	**1.** Take off the cap by turning counterclockwise. **2.** Remove the metal ring and the sheet ring and clean the glass cap. **3.** If necessary, replace the bulb with a 25 watt, 230 V, 300 °C heat - resistant oven light bulb. **4.** Fit the metal and the sheet ring to the glass cap. **5.** Replace the glass cap.

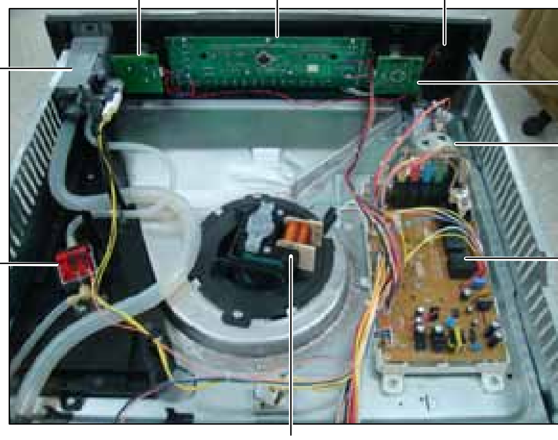
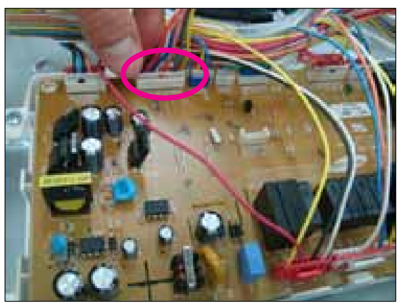
3-7 Replacement of the side Halogen Lamp

The Assembly is reverse order of disjointing.

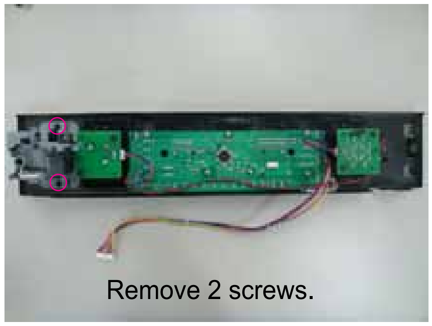
Parts	Explaination Photo	Explaination
Lamp Bulb	 	**1.** To remove the glass cover, hold the lower end with one hand, insert a flat sharp implement such as a table knife between the glass and the frame and pop out the cover. **2.** If necessary, replace the halogen bulb with a 25 ~ 40 watt, 230 V, 300 °C heat - resistant halogen oven light bulb. **Tip** Always use a cloth when handling a halogen bulb to avoid depositing oils from your fingers on to the surface of the bulb. **3.** Replace the glass cover.

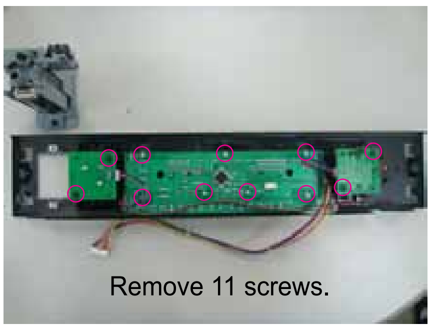
3-8 Replacement of Assy Control Box

The Assembly is reverse order of disjointing.

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<tr><th>Parts</th><th colspan="2">Explaination Photo</th></tr>
<tr><td rowspan="5">Assy Control Box</td><td colspan="2">
</td></tr>
<tr><th>Explaination Photo</th><th>Explaination</th></tr>
<tr><td></td><td>1. Remove one connector from the main pcb.</td></tr>
<tr><td></td><td>2. Remove two Tubes and one connector at assy inlet.</td></tr>
<tr><td></td><td>3. Remove 3 screws at both sides and top inside of assy control box, lift up assy control box and pull forward to separate.</td></tr>
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3-8 Replacement of Assy Control Box (Continued)

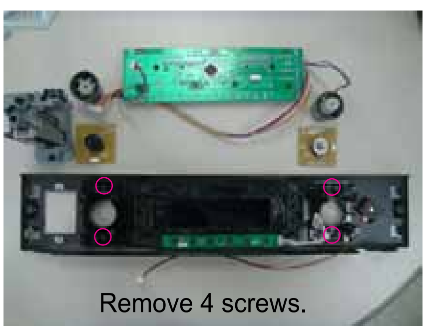








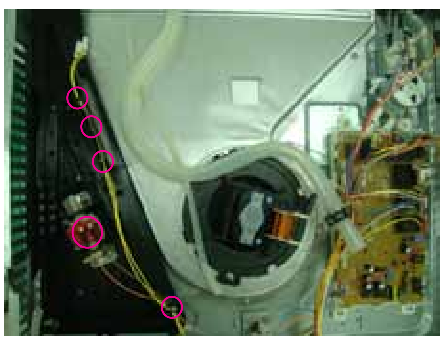
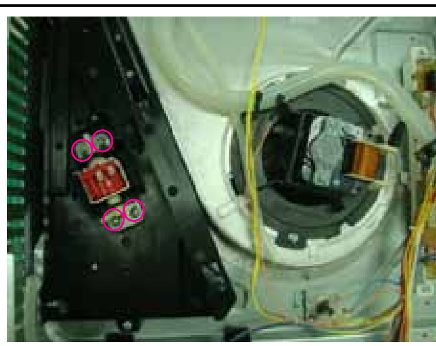






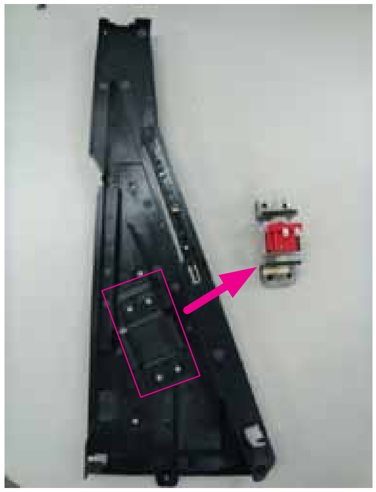
3-9 Replacement of Tube Steam Module

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Tube Steam Module		**1.** Remove the control-box.
		**2.** Remove the 3 tubes.
		**3.** Remove the 2 connectors and 4 hook.
		**4.** Remove the 4 screws.

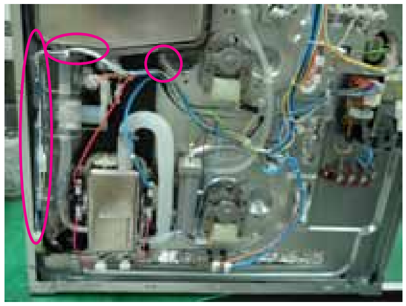
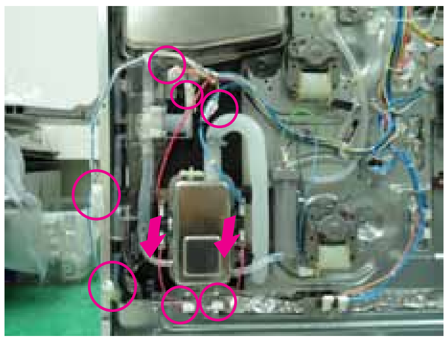
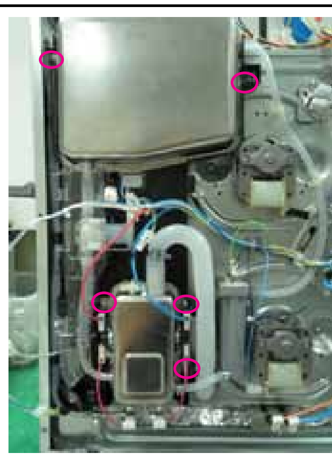
3-9 Replacement of Tube Steam Module (Continued)

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Tube Steam Module		**5.** Remove the Pump Motor.
	 	**6.** Remove 2 rubbers.

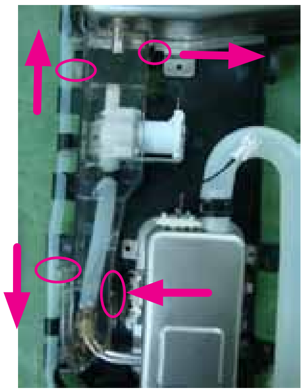
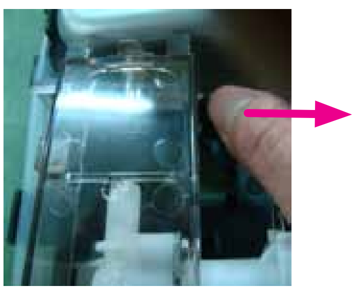
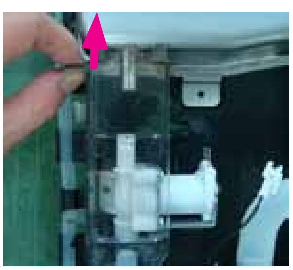
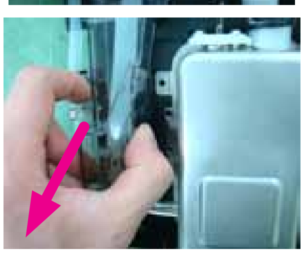
3-10 Replacement of Assy Steam Module

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Assy Steam Module		**1.** Seperate the wire-harness from the hook on assy steam module and separate the 1 tube from assy steam generator.
		**2.** Remove 7 connectors and 2 TCO from the assy steam generator. * Lower Lamp is optional.
		**3.** Seperate the 2 tubes.
		**4.** Remove 5 screws.

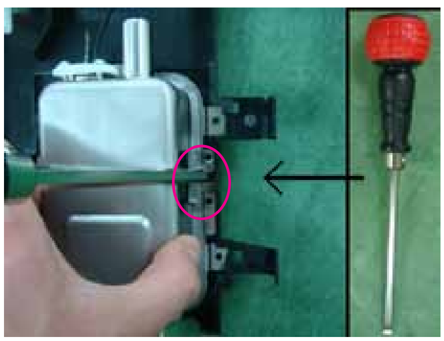
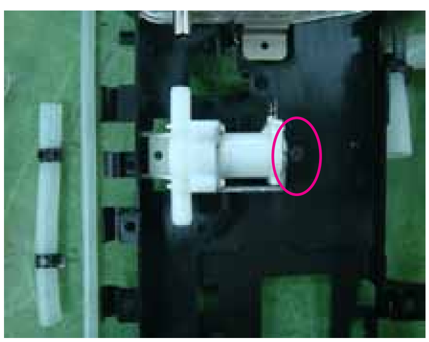
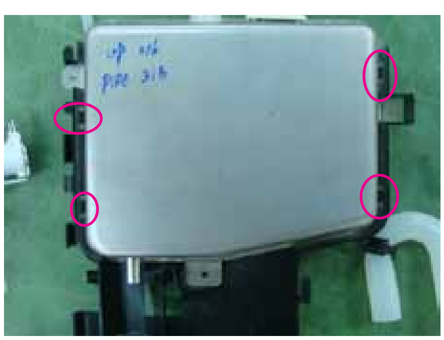
3-10 Replacement of Assy Steam Module (Continued)

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Assy Steam Module		**5.** Lift up assy steam module to seperate from oven.
		Seperate the cover upper steam. There are totally 4 hook that each has different direction.
		**6.** Seperate right and up side hook first.
		**7.** Seperate left and up side hook also.
		**8.** Seperate last 2 hook.

3-10 Replacement of Assy Steam Module (Continued)

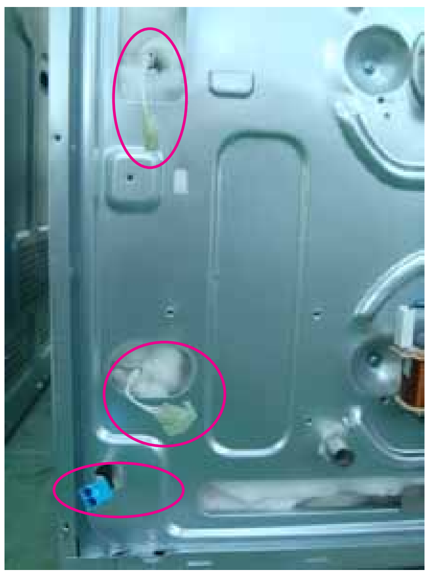
The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Assy Steam Module		**9.** Remove 5 tubes.
		**10.** Seperate the right side hook by using a flat head screwdriver. And then remove the assy steam generator.
		**11.** Seperate the right side hook by using a flat head screwdriver. And then remove the water valve.
		**12.** Seperate the 4 hook by using a flat head screwdriver. And then remove the assy water tank.

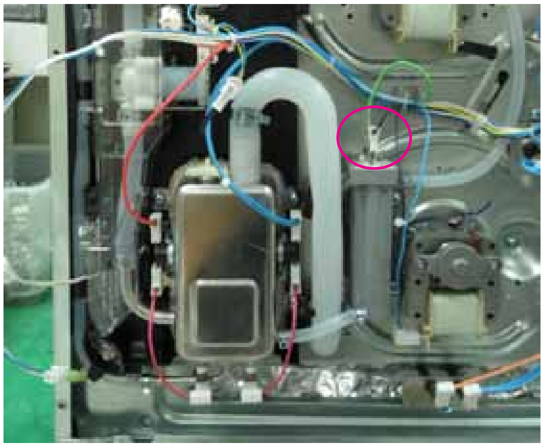
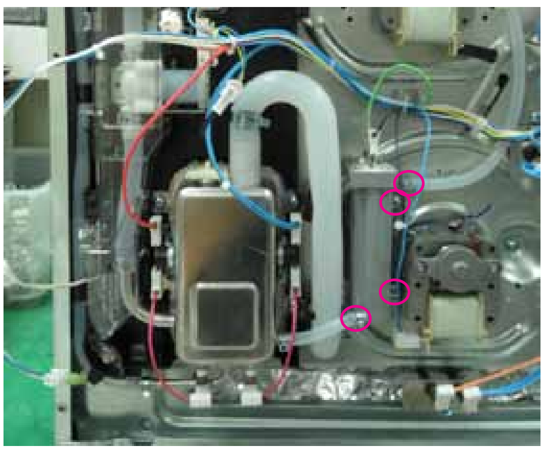
3-11 Assembly for Main Assy Steam module part

Parts	Explaination Photo	Explaination
Assy Water tank		**1.** Press the 4 point of assy water tank and check the right assembly with hook.
Water valve		**1.** Insert left side of water valve into hook.
		**2.** Press the right side of water valve.
Assy Steam generator		**1.** Insert left side of assy steam generator into hook.

3-11 Assembly for Main Assy Steam module part (Continued)

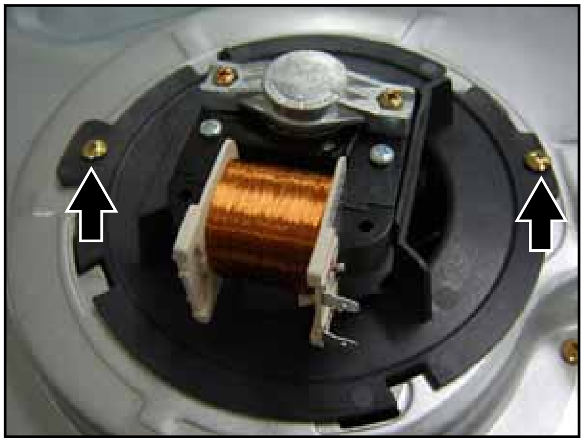
Parts	Explaination Photo	Explaination
Assy Steam generator		**2.** Press the right side of assy steam generator.
Connectors and Assy steam module	  	**1.** Check the right position between assy steam module hole and connector.

3-12 Replacement of Assy generator sub

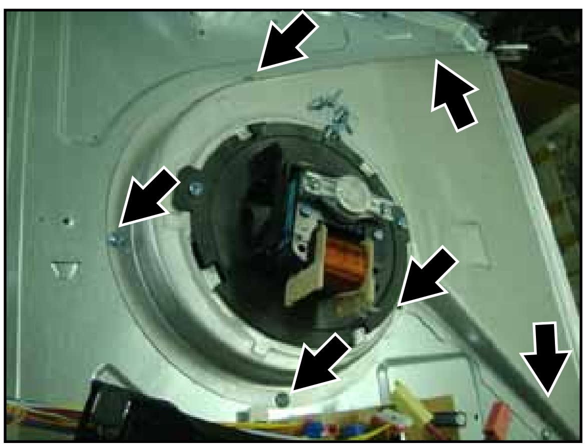
Parts	Explaination Photo	Explaination
Assy generator sub	 	**1.** Remove 2 connectors. **2.** Remove the 2 tubes and 2 screws.

3-13 Replacement of Motor Fan Cooling

The Assembly is reverse order of disjointing.

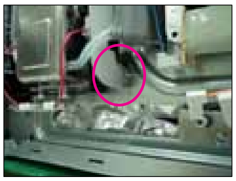
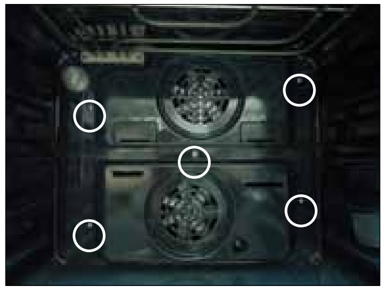
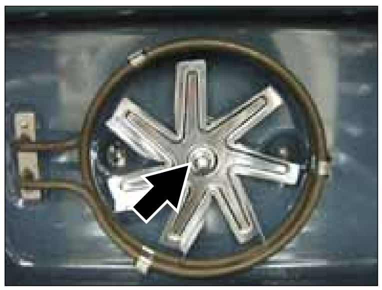
Parts	Explaination Photo	Explaination
Fan Cooling		**1.** Remove two screws and turn toward the clockwise to separate.

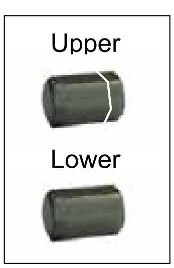
3-14 Replacement of Duct Cover, Bracket & Spring Duct & Ceramic Filter

Parts	Explaination Photo	Explaination
Fan Cooling		**1.** Remove 6 screws from ass'y cover cooling motor.

3-15 Replacement of Motor Convection

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Motor Convection	 	**1.** Seperate the 1 tube from the adiabatic rear. * **Be sure to connect tube again when assembly.** **2.** Remove 5 screws at the back inside cavity to separate the cover casing.
		**3.** Turn flange nut to the left to release and separate spacer fan convection and fan convection.
		**4.** Remove two connector from convection motor **5.** Remove turn toward the counter-clockwise to separate. **Reference** Convection fan is turn in the opposite direction each other for improvement cook performance. Upper fan is turn in counter-clockwise direction, Lower fan is fan turn in clockwise direction therefor convection fan direction and netflange are opposited each other. Convection fan is indicated (U),(L) and netflange is different the head shape.

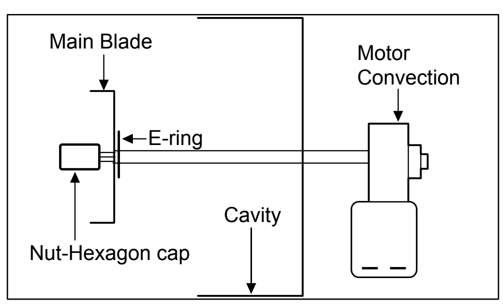


Nut-Hexagon cap





Fan-Convection



3-16 Replacement of Heater Convection twin

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Heater Convection Twin		**1.** Remove the two connectors. **2.** Remove two screws securing heater convection twin at the rear.
		**3.** Pull the securing bracket at the left forward, and pull it toward the left to separate heater convection twin.

3-17 Replacement of Assy Partition S/W

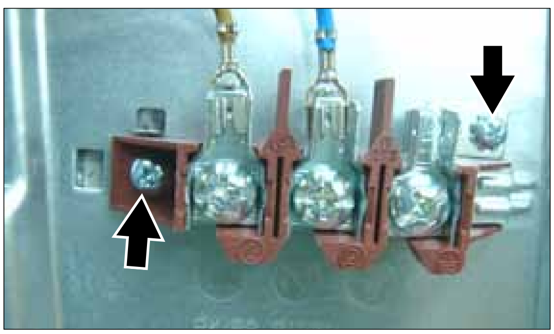
Parts	Explaination Photo	Explaination
Partition S/W		**1.** Remove a connector. **2.** Remove two screws.

3-18 Replacement of Thermostat

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Thermostat		**1.** Unfold one point.

3-19 Replacement of Terminal Block

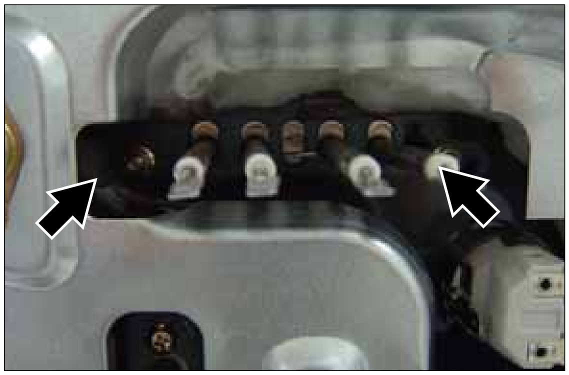
Parts	Explaination Photo	Explaination
Terminal Block		**1.** Remove two wires from terminal block.. **2.** Remove three screws.

3-20 Replacement of Sensor Thermistor

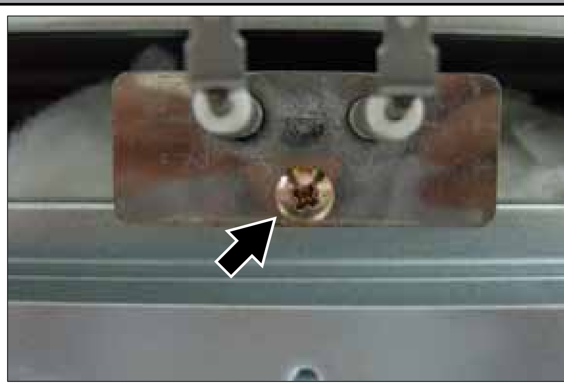
Parts	Explaination Photo	Explaination
Sensor Thermistor		**1.** Remove one screws.

3-21 Replacement of Heater Grill

The Assembly is reverse order of disjointing.

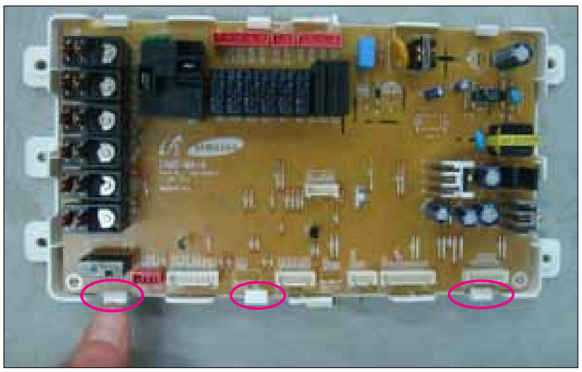
Parts	Explaination Photo	Explaination
Heater Grill		**1.** Remove the four connectors. **2.** Remove each nut frange at right and left sides.
		**3.** Turn the upper nut circular inside the cavity to the counterclockwise to release, pull heater girll forward to separate.

3-22 Replacement of Heater Bottom

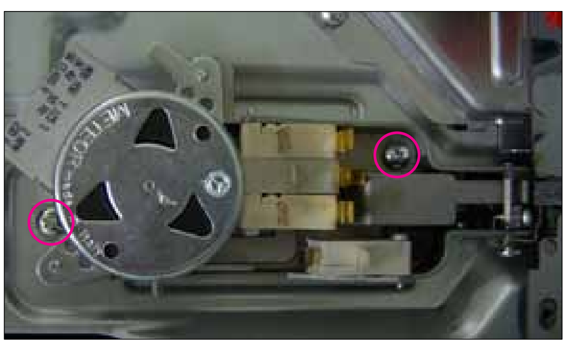
Parts	Explaination Photo	Explaination
Heater Bottom		**1.** Remove the two connectors. **2.** Remove one screw and pull forward to separate it.

3-23 Replacement of Assy PCB Parts (Main PCB)

The Assembly is reverse order of disjointing.

Parts	Explaination Photo	Explaination
Assy PCB Parts (Main PCB)		**1.** Remove a screw.
		**2.** Seperate 3 hook.

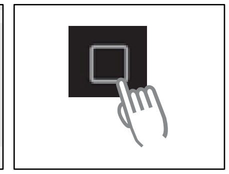
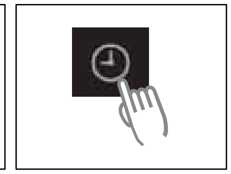
3-24 Replacement of Assy-Door Lock

Parts	Explaination Photo	Explaination
Assy-Door Lock		**1.** Remove two screws.

4. Troubleshooting

4-1 Failure Codes



There are a kind of error code and two kinds of warning codes. Possible error codes during use can be checked before service. Press [Stand by Mode + Current time 0:00] and [Function + Time] at the same time and hold them for 5 seconds, error codes are displayed. Press [Function] button, the latest 5 error codes can be checked. But, if the oven turns off, the stored error codes are deleted. Press [Function + Time] button to return to ‘normal display mode’.

4-1-1 Temp Sensor Error

Error Code	Gerneral Function	Solution	Page
E-27	Cavity upper sensor open	**Sensor Open Error** It occurs due to a defective sensor, misplaced wires, a defective PCB.	29 Page
E-29	Cavity lower sensor open		
E-26	Cooling motor sensor open		
E-71	Steam generator sensor open		
E-28	Cavity upper sensor short	**Sensor Short Error** It occurs due to a defective sensor, misplaced wires, a defective PCB. It may occur when the ambient temperature falls under -5°C.	30 Page
E-2A	Cavity lower sensor short		
E-2C	Cooling motor sensor short		
E-72	Steam generator sensor short		

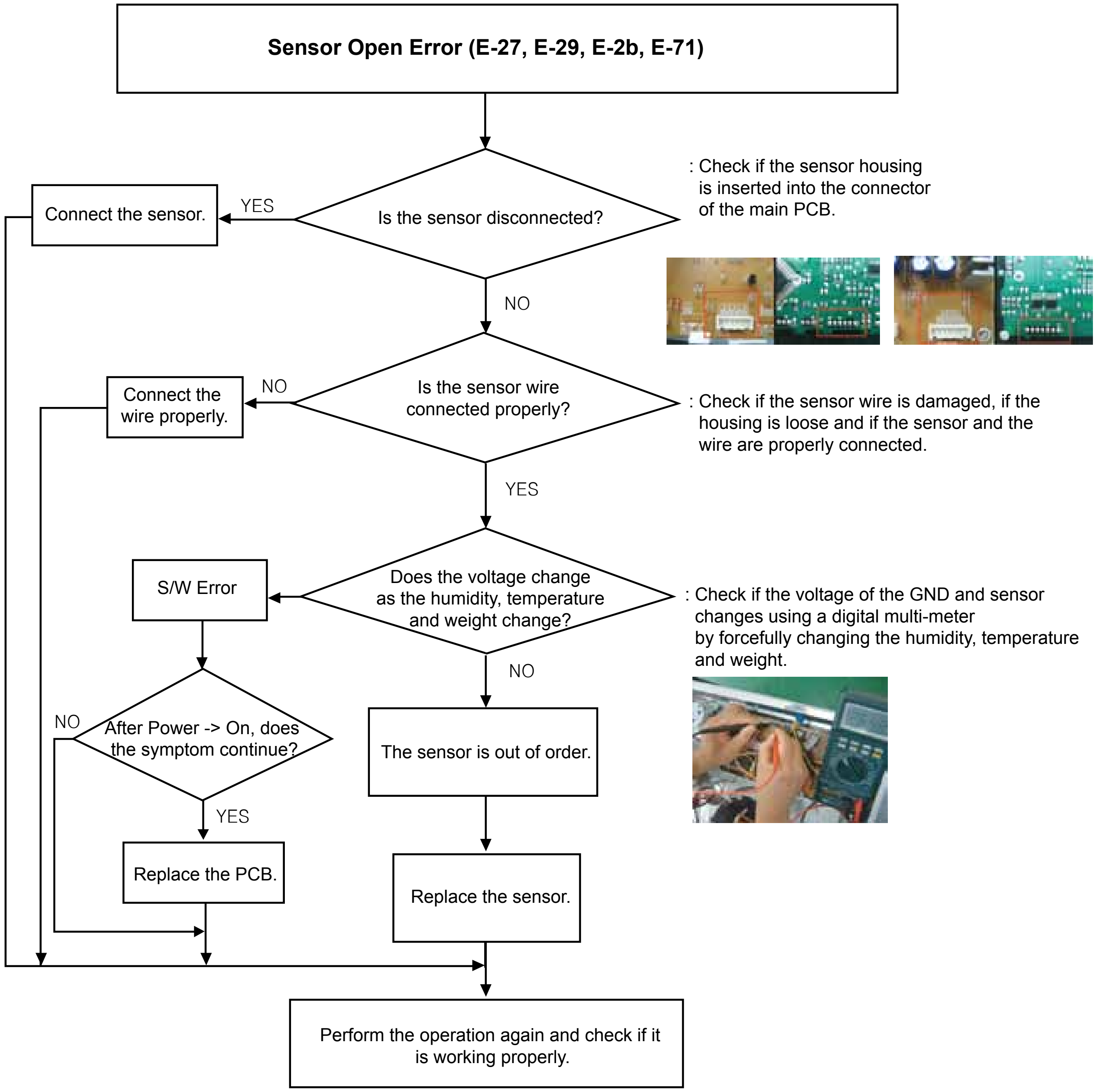
4-1-2 Safety Error

<table>
<tr><th>Error Code</th><th>Gerneral Function</th><th>Solution</th><th>Page</th></tr>
<tr><td>S-01</td><td>Overtime<table><tr><th>Temp</th><th>Time</th></tr><tr><td>~ 100°C</td><td>16 hours</td></tr><tr><td>105°C ~ 240°C</td><td>8 hours</td></tr><tr><td>245°C ~</td><td>4 hours</td></tr></table></td><td>This error occurs when the oven works during CUT-OFF TIME in the same mode and at the same temperature without any operation of an user.
This error is to prevent a risk of fire and hazards in case an user forgets to turn off the oven after use or the oven automatically starts in an unusual way.
The oven can be used after off.</td><td>32 Page</td></tr>
<tr><td>-SE-</td><td>Touch Button Short</td><td>This error occurs when a button is pressed and held for over 10 seconds.
It may occur when water soaks through the inside of the control panel or dust particles are stuck to TOUCH PAD. In this case, remove DISPLAY PCB, clean TOUCH PAD PCB or replace it.</td><td>31 Page</td></tr>
</table>

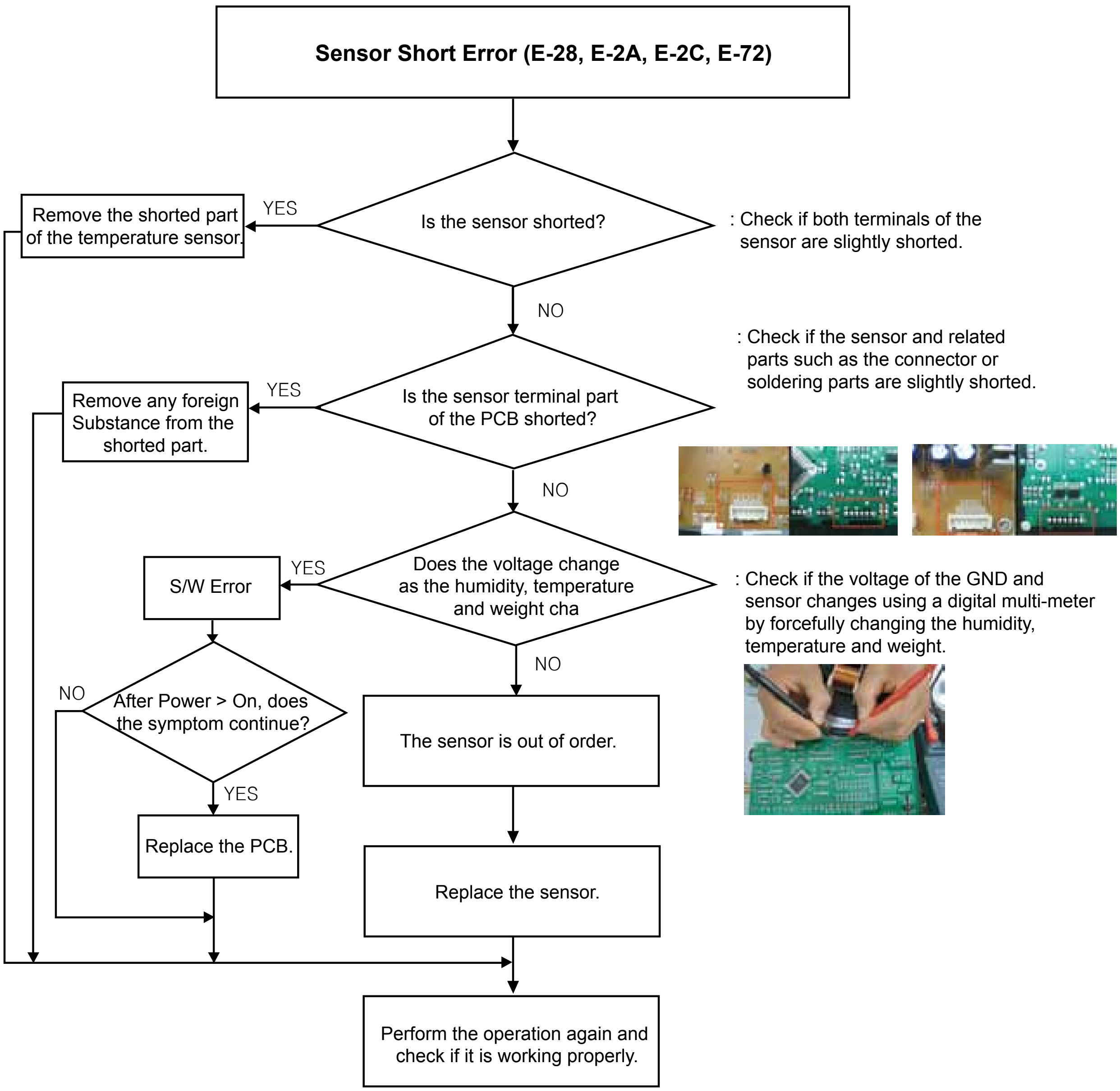
4-1-2 Safety Error (Continued)

Error Code	Gerneral Function	Solution	Page
-dE-	Divider Missing	This error occurs when the divider sensing switch senses that the divider is used at the inappropriate mode.	33 Page
E-08	Preheating Time Out	This error occurs when the set preheating time, 30 minutes, is over. It may occur due to a heater's open, defects of relay contact point and wiring defects.	35 Page
E-09	Excess of cooking compart-ment's temperature	- This error occurs when the temperature of cooking compartment maintains over 320°C for more than 5 minutes. - This error occurs when a fire occurs inside cooking compartment or the temperature cannot be con-trolled because of sensor's failure.	38 Page
E-0A	Excess of cooking compart-ment's temperature	- This error occur immediately after the temperature of cooking compartment reaches 350°C. - This error occurs when a fire occurs inside cooking compartment or the temperature cannot be con-trolled because of sensor's failure.	38 Page
E-0b	Cooling motor lock sensed	- This error occurs when the temperature sensor on the Main PCB senses abnormal temperature. - It occurs 30 ~ 60 minutes after the cooling motor does not operate. - It may occur when the cooling motor stops running by power off during operation of the oven, then it runs again.	34 Page
E-73	Exess of steam generator temperature	- This error occurs when the temperature sensor in the steam generator senses abnormal temperature.	36 Page
E-78	Water valve open sensed	- This error occurs when generator sensor can not sense the water even though water valve is opened for 30 sec.	28 Page

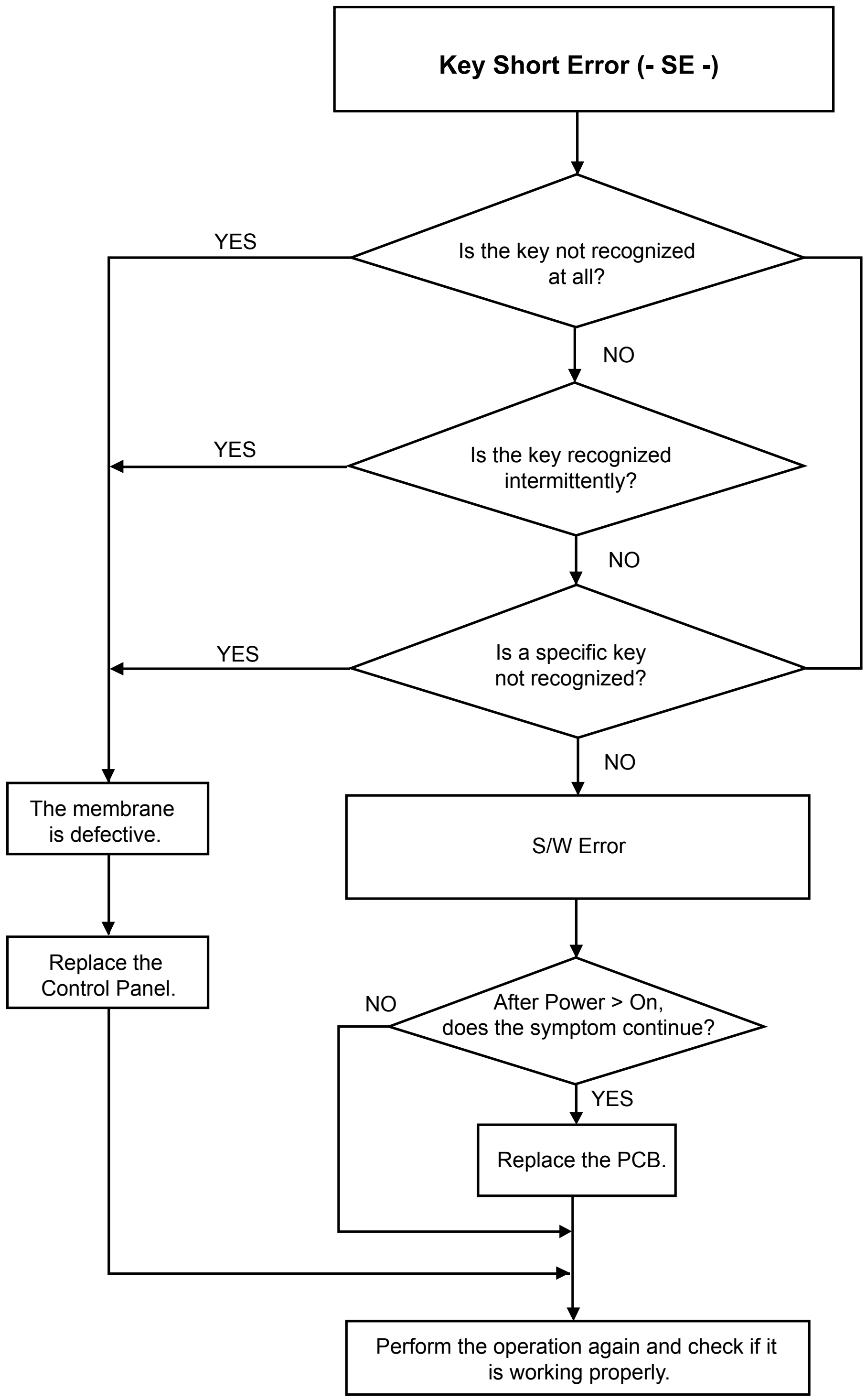
4-1-3 E-27,E-29, E-2b, E-71



4-1-4 E-28, E-2A, E-2C, E-72

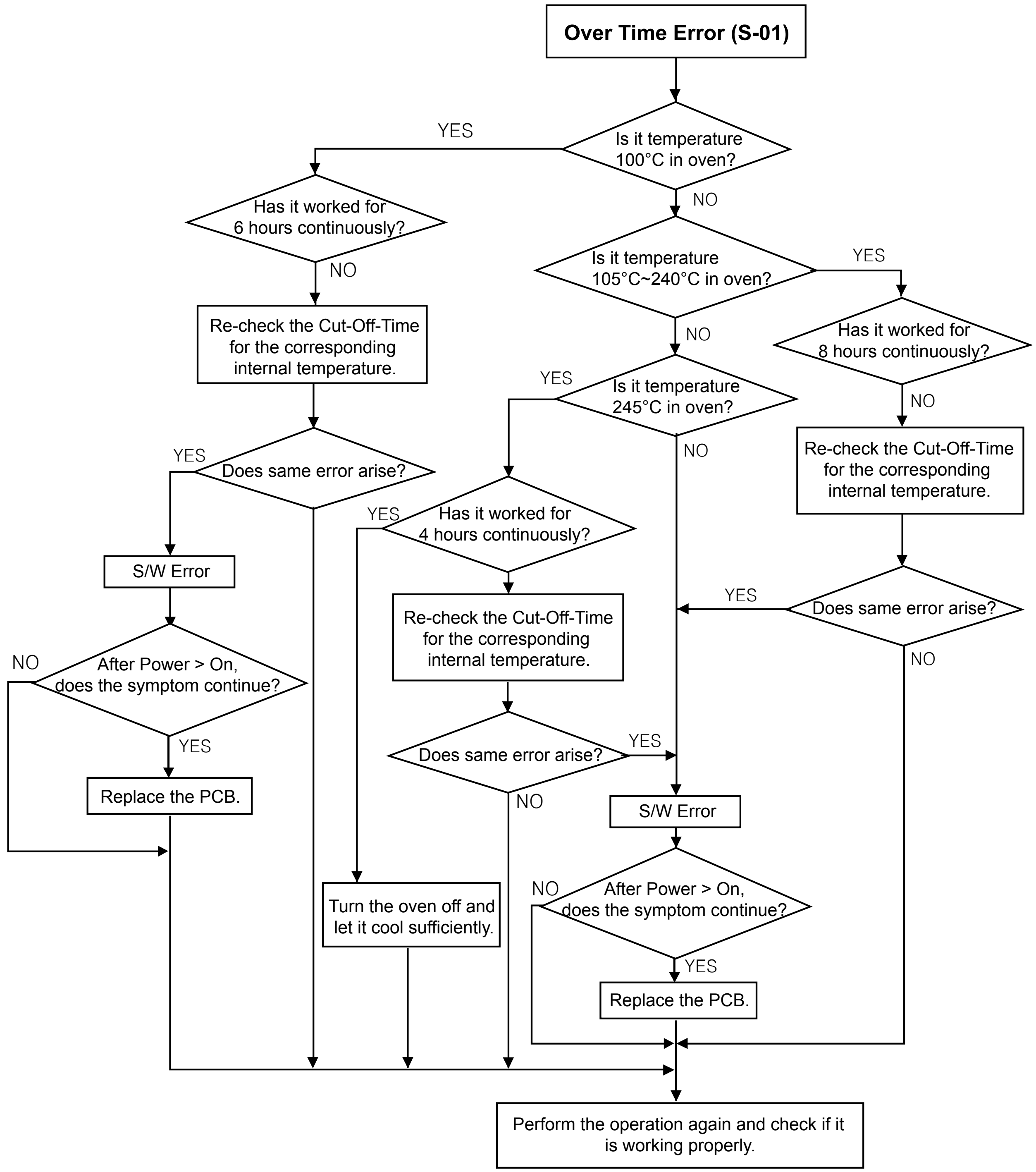


4-1-5 -SE-



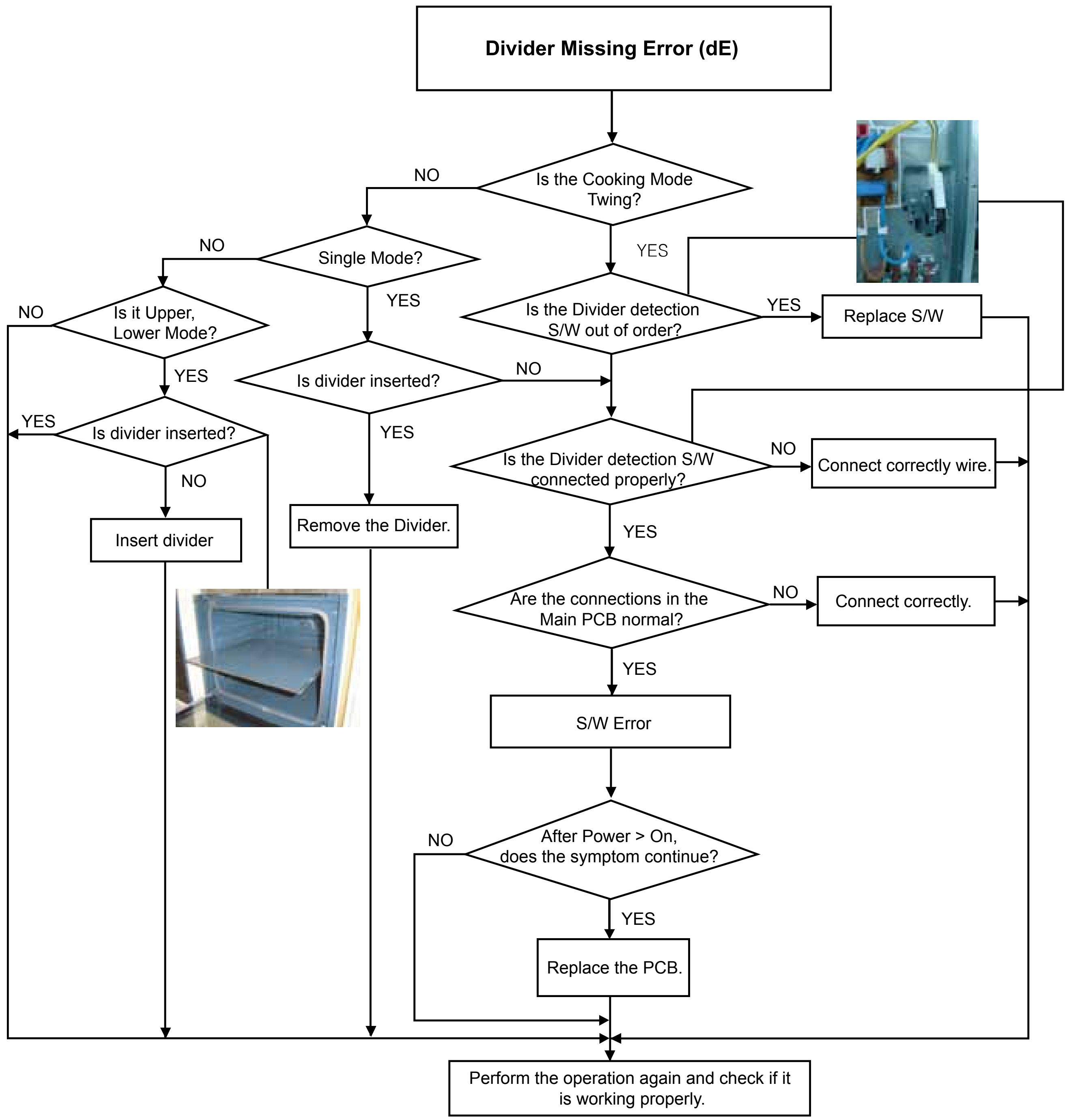
Key Short Error (- SE -)
Is the key not recognized at all?
YES
NO
Is the key recognized intermittently?
YES
NO
Is a specific key not recognized?
YES
NO
The membrane is defective.
Replace the Control Panel.
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Perform the operation again and check if it is working properly.

4-1-6 S-01



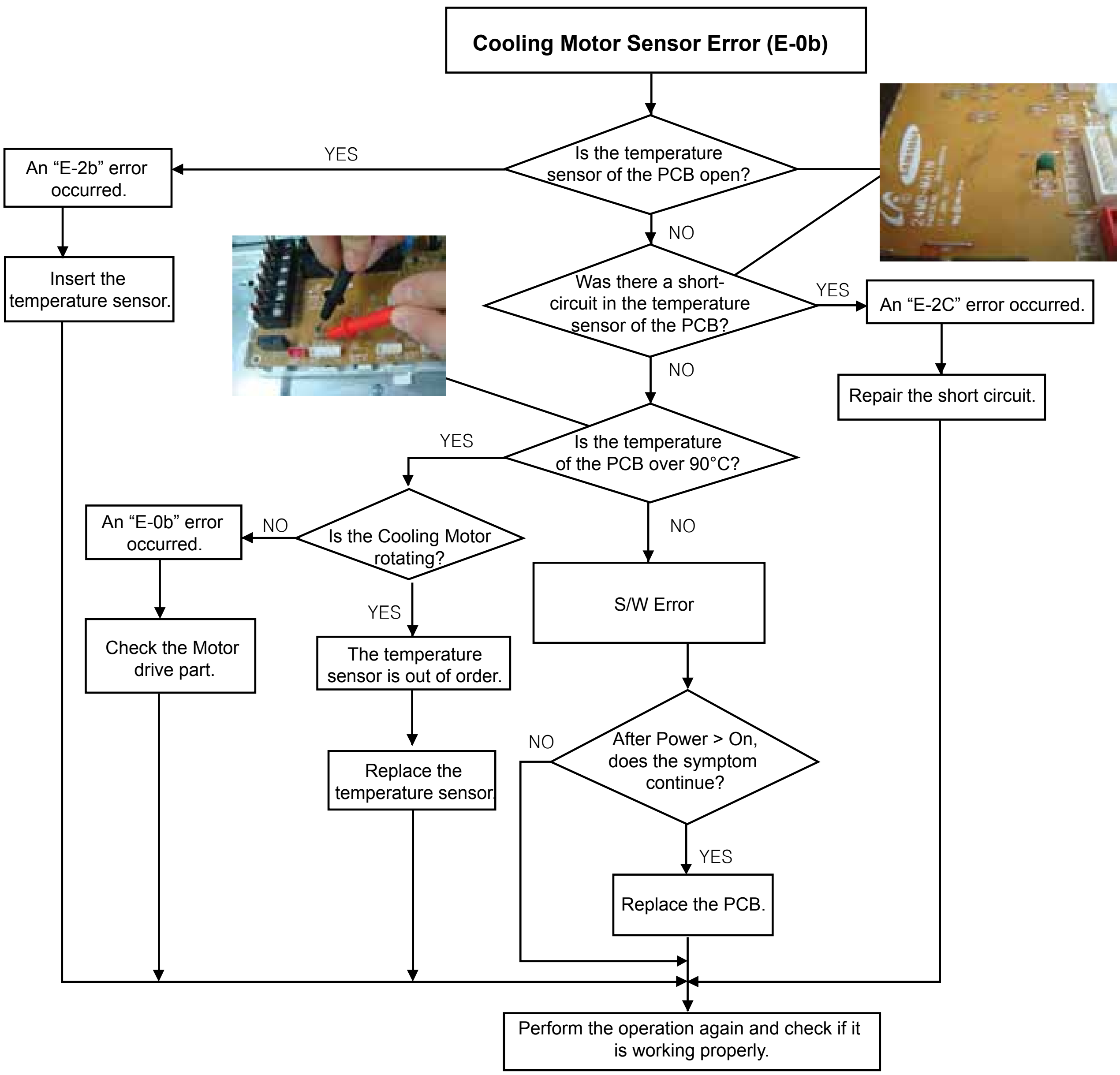
Over Time Error (S-01)
Is it temperature 100°C in oven?
YES
NO
Has it worked for 6 hours continuously?
NO
Re-check the Cut-Off-Time for the corresponding internal temperature.
Does same error arise?
YES
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Is it temperature 105°C~240°C in oven?
YES
NO
Has it worked for 8 hours continuously?
NO
Re-check the Cut-Off-Time for the corresponding internal temperature.
Does same error arise?
YES
NO
Is it temperature 245°C in oven?
YES
NO
Has it worked for 4 hours continuously?
YES
Re-check the Cut-Off-Time for the corresponding internal temperature.
Does same error arise?
YES
NO
Turn the oven off and let it cool sufficiently.
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Perform the operation again and check if it is working properly.

4-1-7 dE



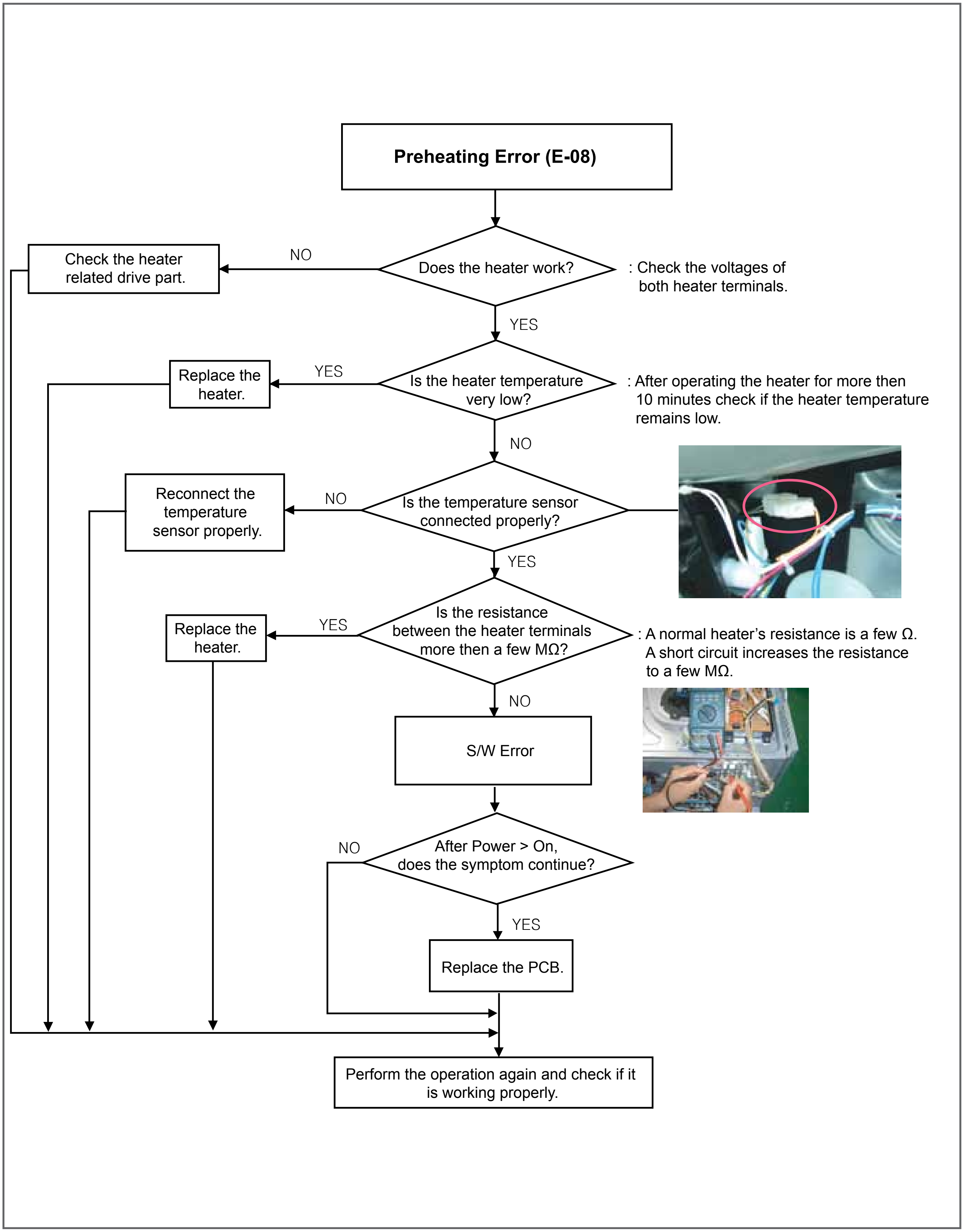
Divider Missing Error (dE)
Is the Cooking Mode Twing?
NO
YES
Single Mode?
NO
YES
Is it Upper, Lower Mode?
NO
YES
Is divider inserted?
YES
NO
Insert divider
Is divider inserted?
NO
YES
Remove the Divider.
Is the Divider detection S/W out of order?
YES
Replace S/W
Is the Divider detection S/W connected properly?
NO
Connect correctly wire.
YES
Are the connections in the Main PCB normal?
NO
Connect correctly.
YES
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Perform the operation again and check if it is working properly.

4-1-8 E-0b

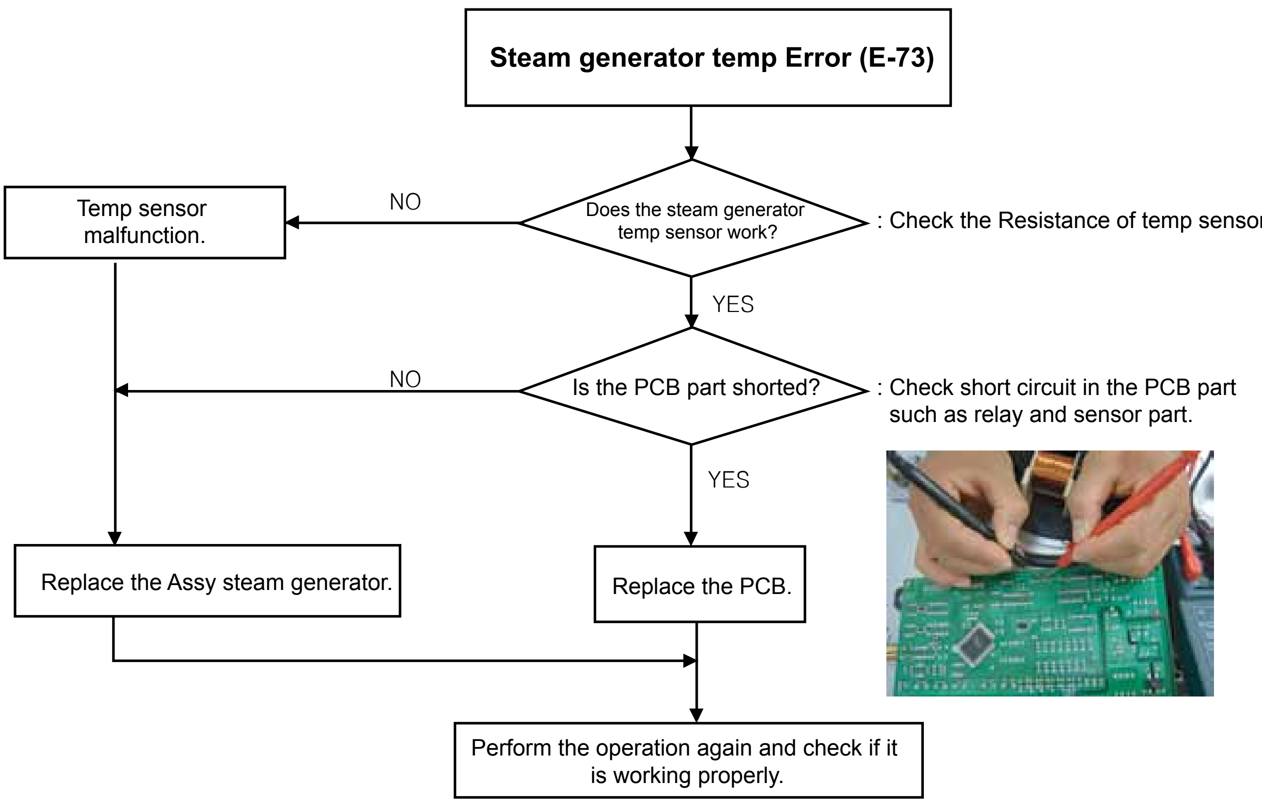


Cooling Motor Sensor Error (E-0b)
Is the temperature sensor of the PCB open?
YES
An "E-2b" error occurred.
Insert the temperature sensor.
NO
Was there a short-circuit in the temperature sensor of the PCB?
YES
An "E-2C" error occurred.
Repair the short circuit.
NO
Is the temperature of the PCB over 90°C?
YES
Is the Cooling Motor rotating?
NO
An "E-0b" error occurred.
Check the Motor drive part.
YES
The temperature sensor is out of order.
Replace the temperature sensor.
NO
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Perform the operation again and check if it is working properly.

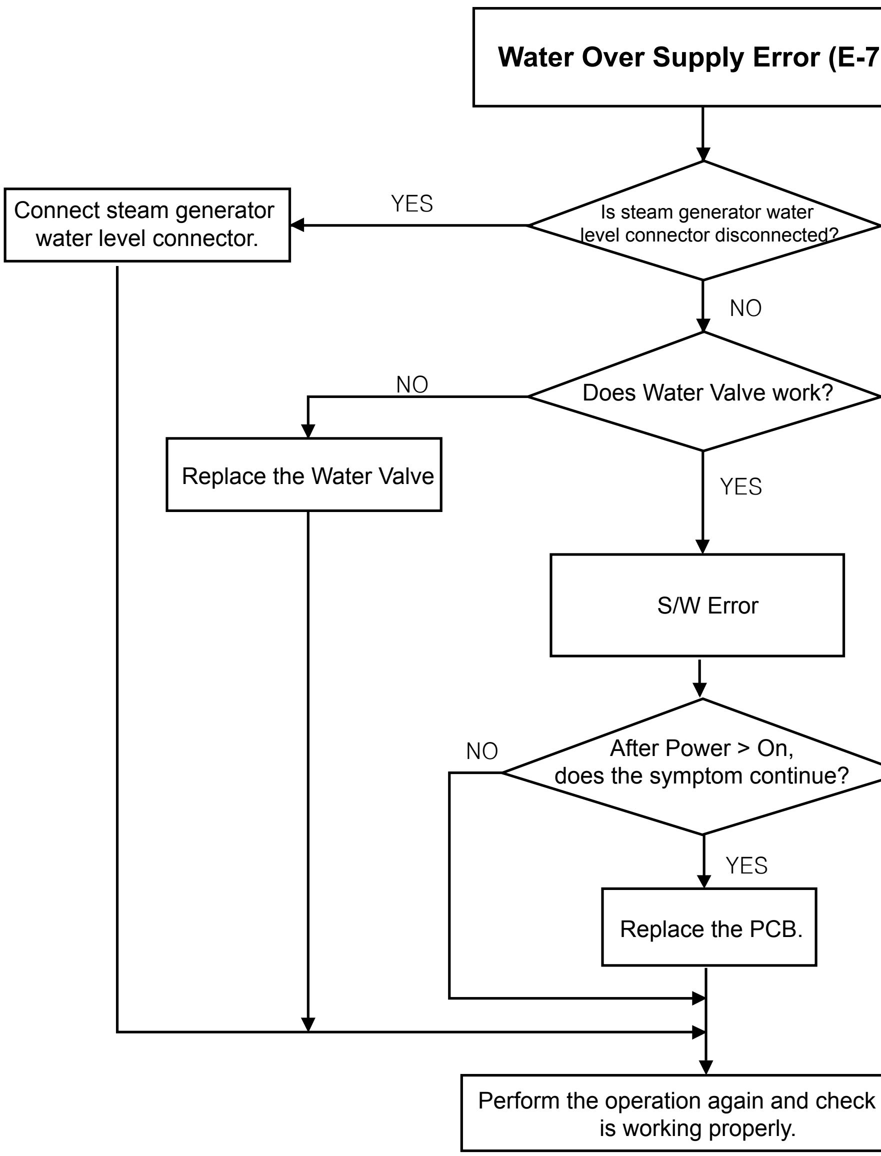
4-1-9 E-08


Preheating Error (E-08)
Does the heater work?
: Check the voltages of both heater terminals.
NO
Check the heater related drive part.
YES
Is the heater temperature very low?
: After operating the heater for more then 10 minutes check if the heater temperature remains low.
YES
Replace the heater.
NO
Is the temperature sensor connected properly?
NO
Reconnect the temperature sensor properly.
YES
Is the resistance between the heater terminals more then a few MΩ?
: A normal heater's resistance is a few Ω. A short circuit increases the resistance to a few MΩ.
YES
Replace the heater.
NO
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Perform the operation again and check if it is working properly.

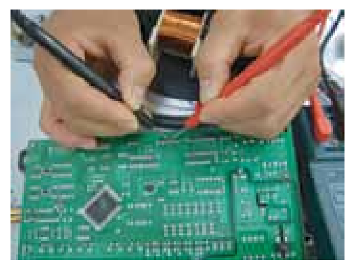
4-1-10 E-73


Steam generator temp Error (E-73)
Does the steam generator temp sensor work?
: Check the Resistance of temp sensor
NO
Temp sensor malfunction.
YES
Is the PCB part shorted?
: Check short circuit in the PCB part such as relay and sensor part.
NO
YES
Replace the Assy steam generator.
Replace the PCB.
Perform the operation again and check if it is working properly.

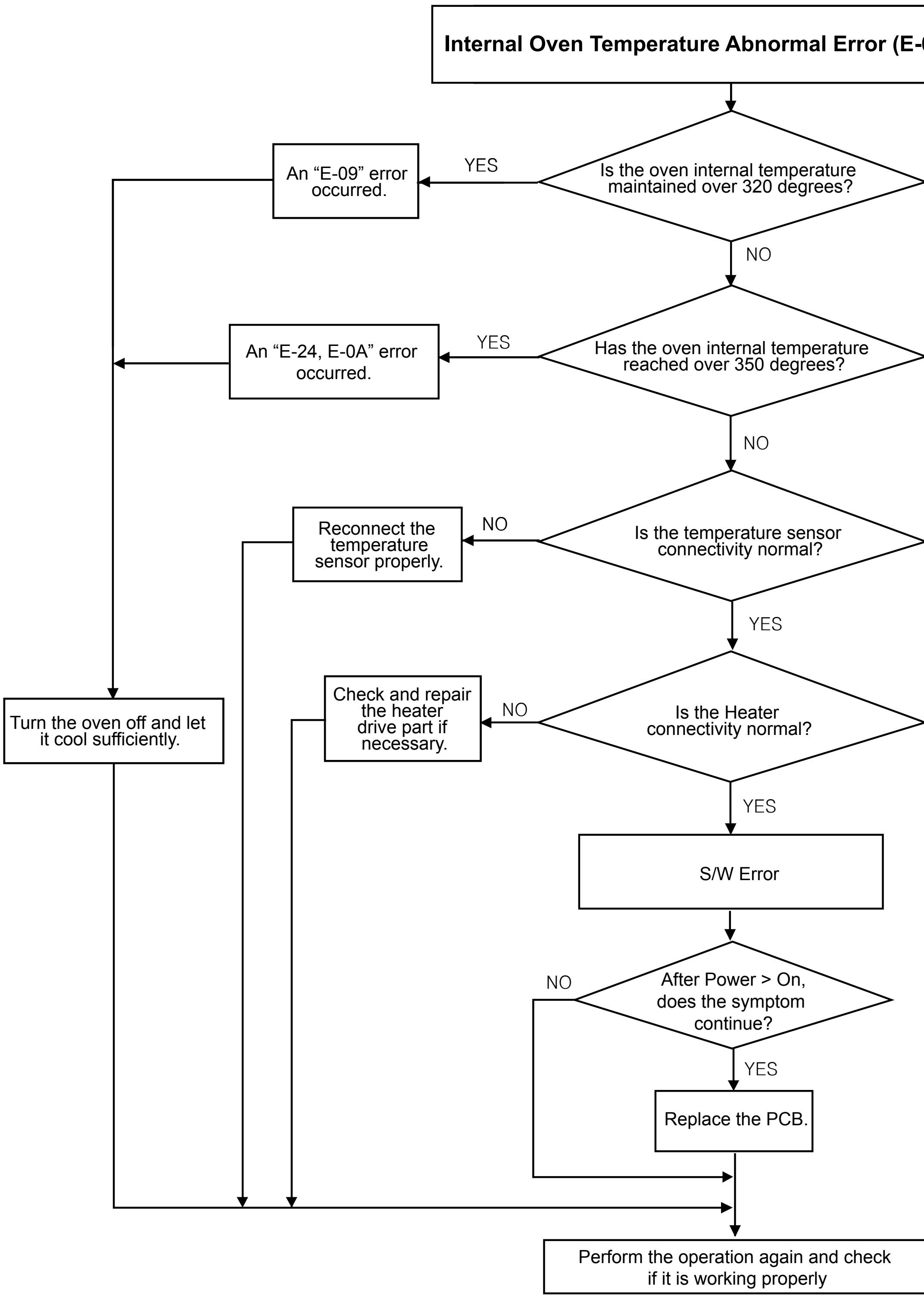
4-1-11 E-78



: Check short circuit in the PCB part such as relay and sensor part.

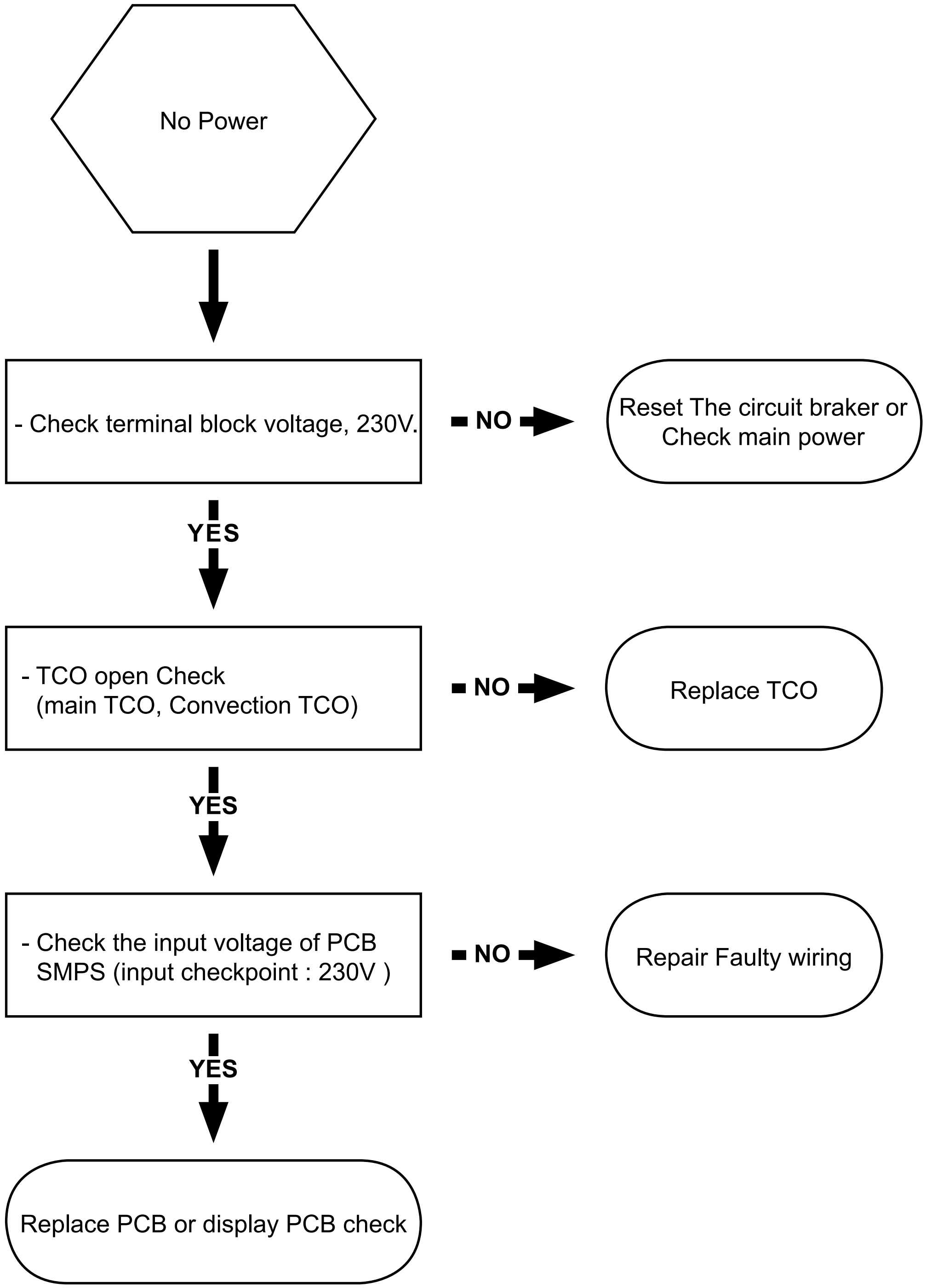


4-1-12 E-0A, E-09

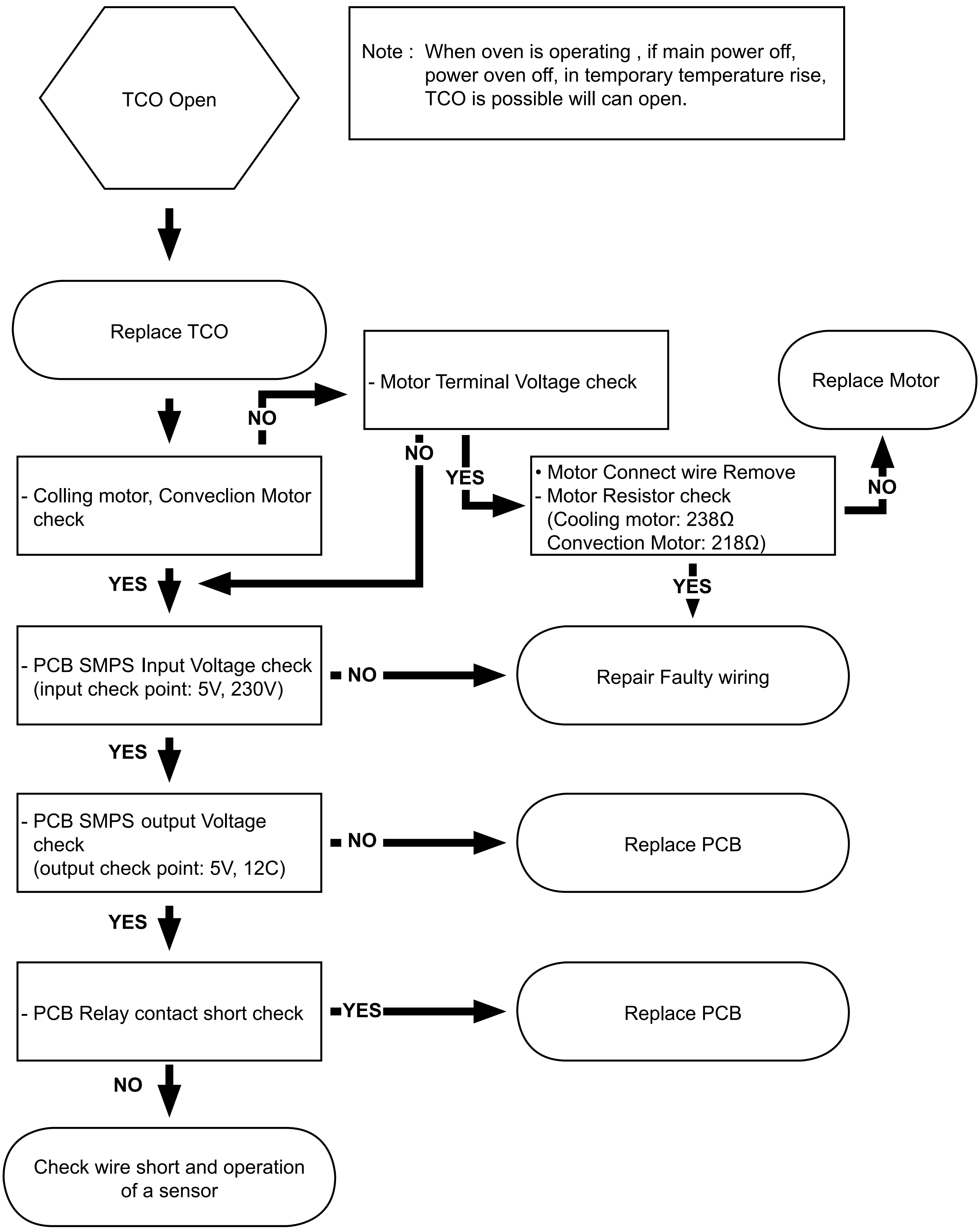


Internal Oven Temperature Abnormal Error (E-0A, E-09)
Is the oven internal temperature maintained over 320 degrees?
YES
An "E-09" error occurred.
NO
Has the oven internal temperature reached over 350 degrees?
YES
An "E-24, E-0A" error occurred.
NO
Is the temperature sensor connectivity normal?
NO
Reconnect the temperature sensor properly.
YES
Is the Heater connectivity normal?
NO
Check and repair the heater drive part if necessary.
Turn the oven off and let it cool sufficiently.
YES
S/W Error
After Power > On, does the symptom continue?
NO
YES
Replace the PCB.
Perform the operation again and check if it is working properly

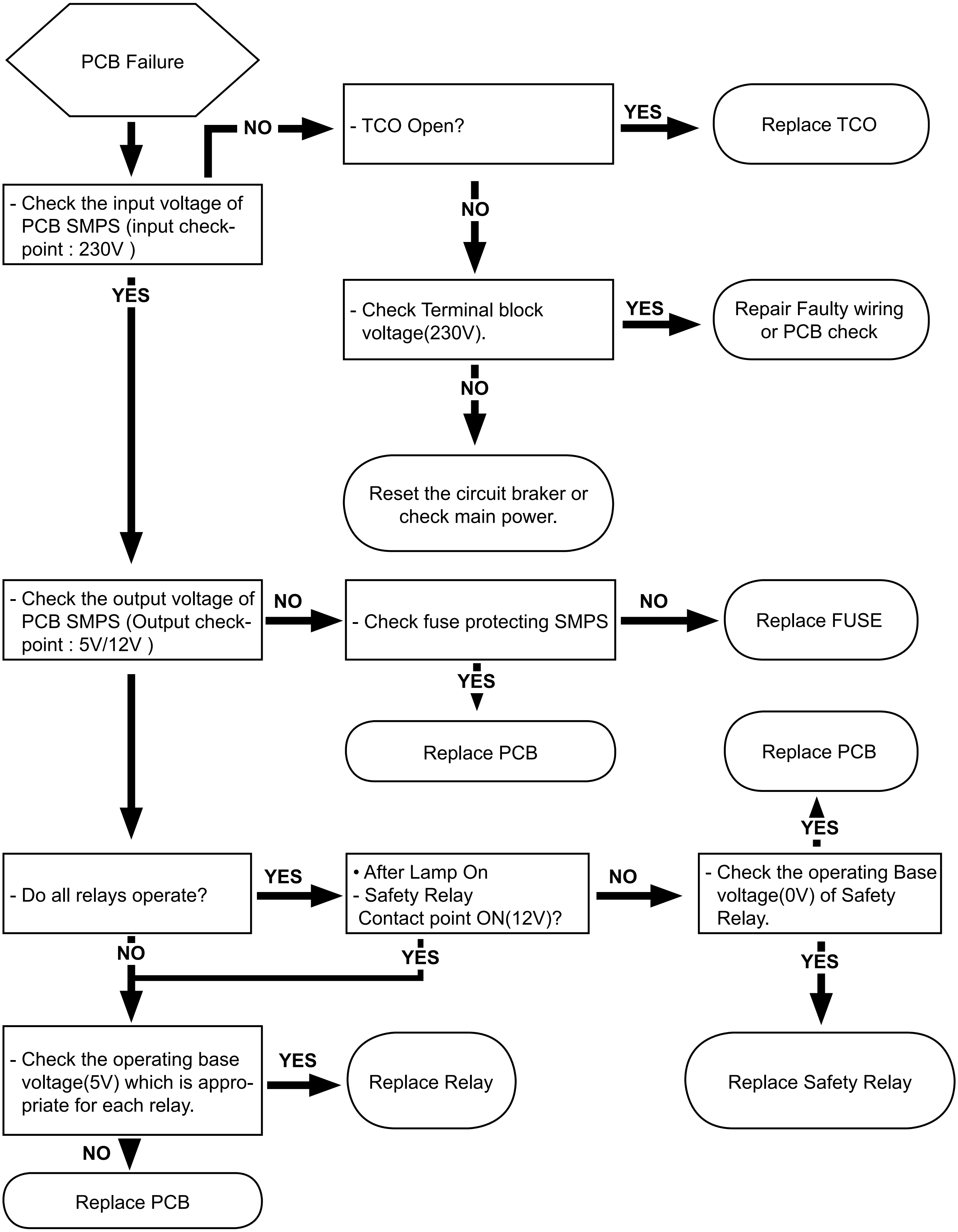
4-1-13 Power Failure



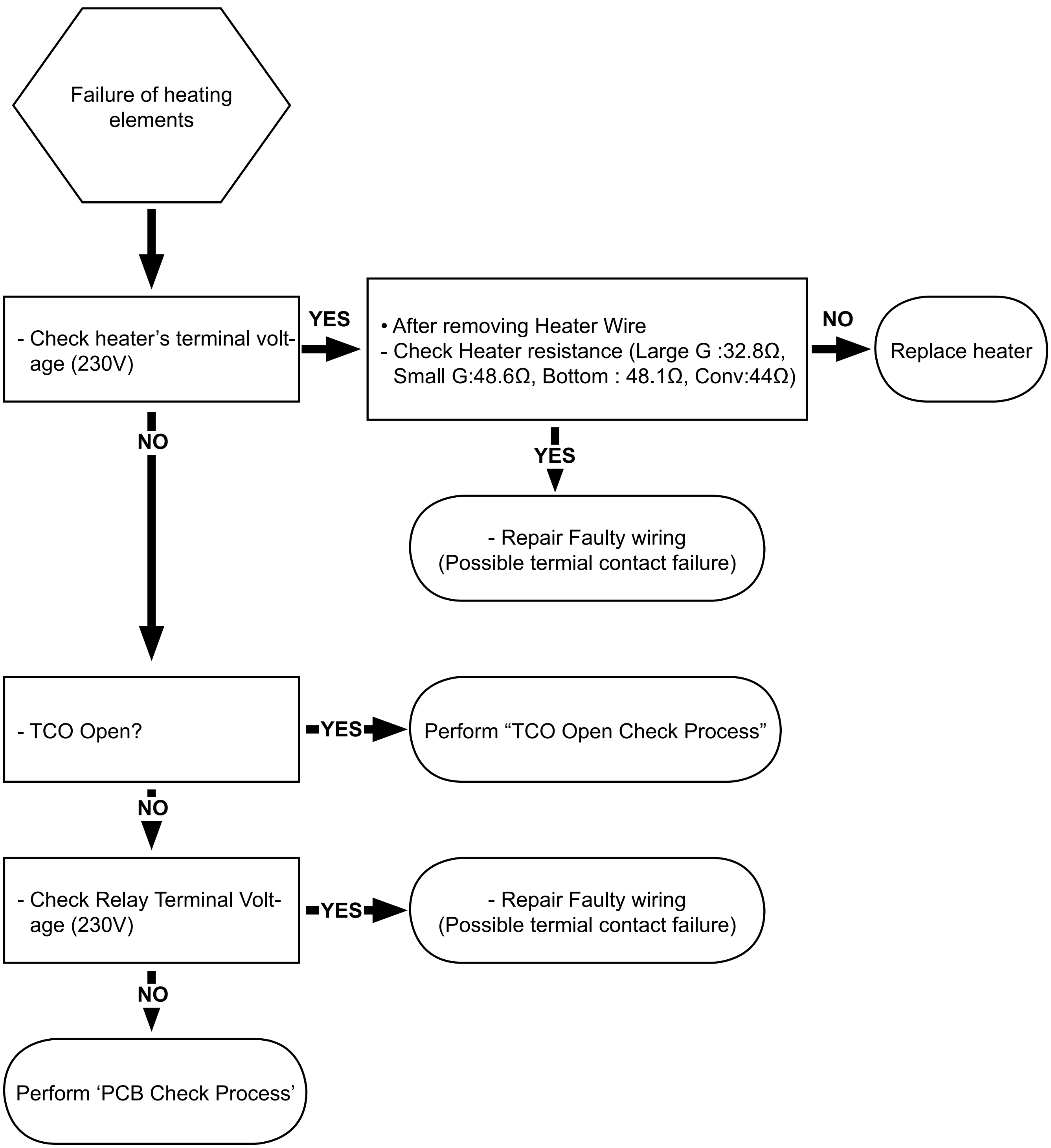
4-1-14 TCO Open



4-1-15 PCB Failure

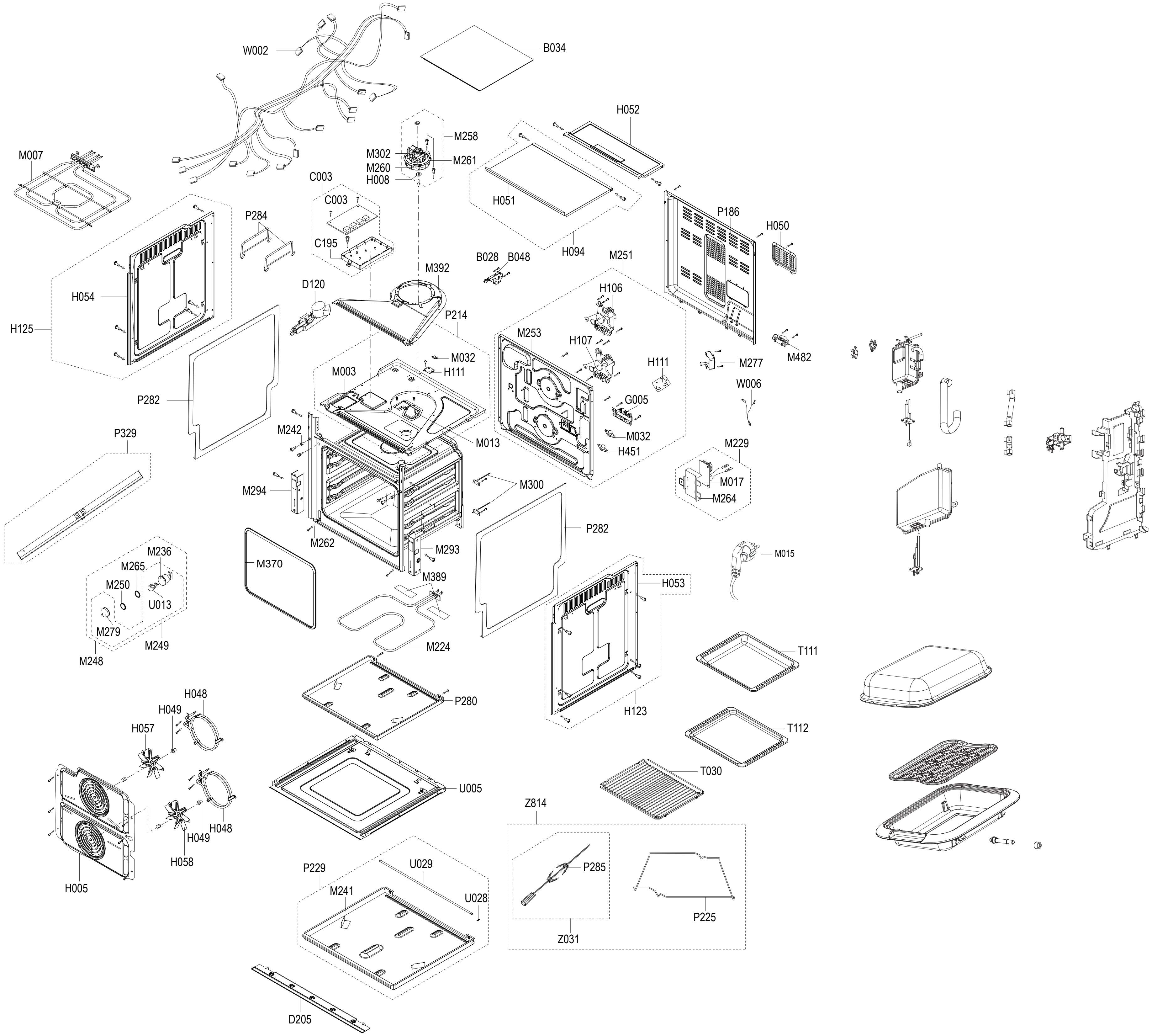


4-1-16 Failure of heating elements



5. Exploded Views and Parts List

5-1 Exploded Views



5-2 Main Parts List

(SNA : SERVICE NOT AVAILABLE)

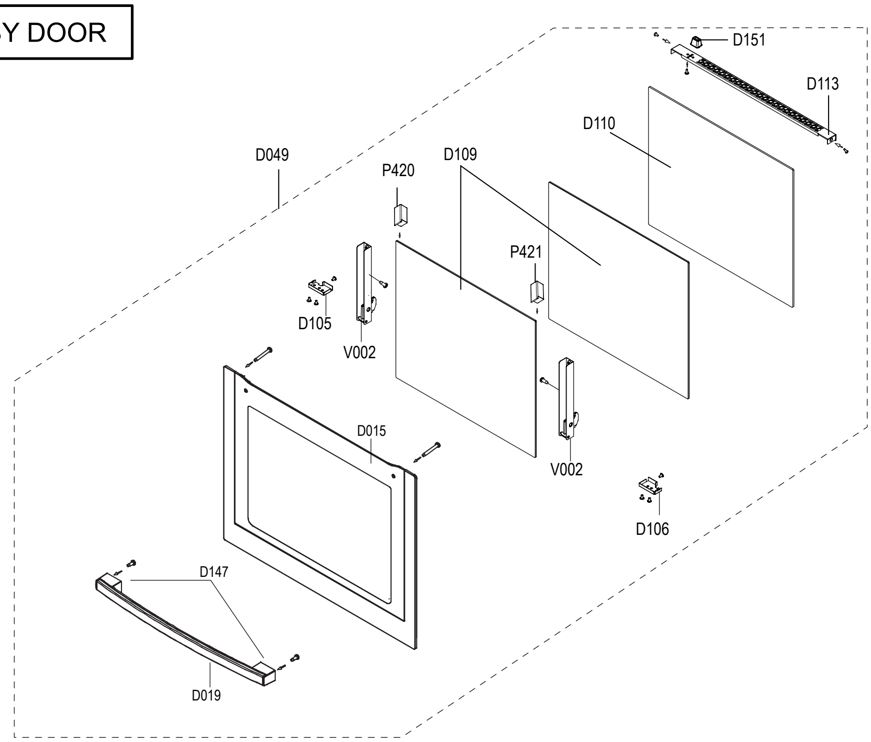
No.	Code No.	Description	Specification	Q'ty	SA/ SNA	Remark
M260	DG61-00056A	SUPPORT-MOTOR COOLING	PA66+GF15%,BT63BSS	1	SA	-

5-2 Main Parts List

No.	Code No.	Description	Specification	Q'ty	SA/ SNA	Remark

5-3 Door Parts List

D049 ASSY DOOR

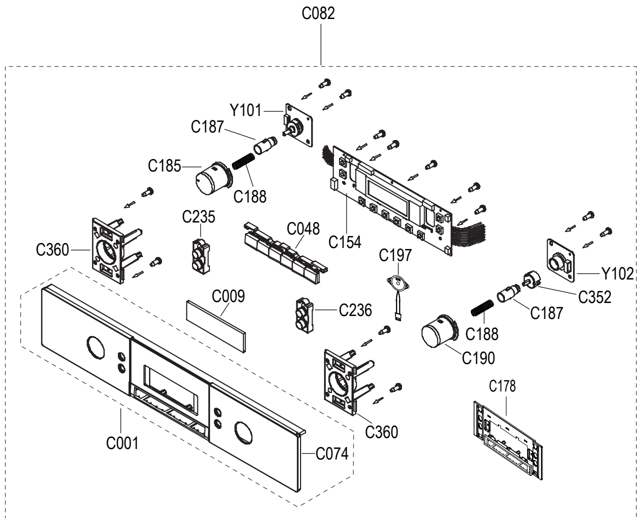


(SNA : SERVICE NOT AVAILABLE)

No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark

5-4 Control Parts List

C082 ASSY CONTROL-BOX



(SNA : SERVICE NOT AVAILABLE)

No.	Code No.	Description	Specification	Q'ty	SA/ SNA	Remark

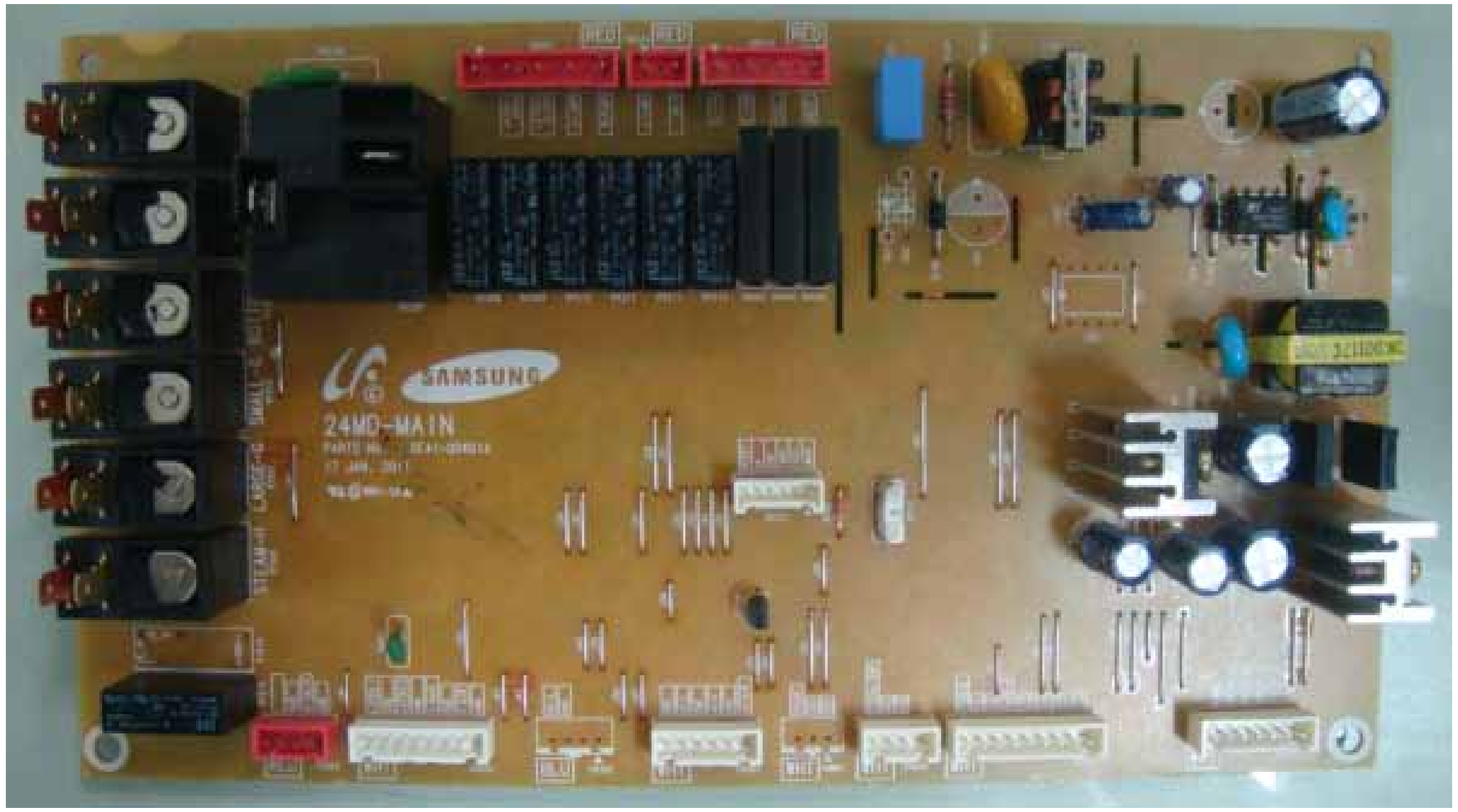
5-5 Standard Parts List

(SNA : SERVICE NOT AVAILABLE)

LEV-EL	Code No.	Description	Specification	Q'ty	SA/ SNA	Remark

6. PCB Diagram

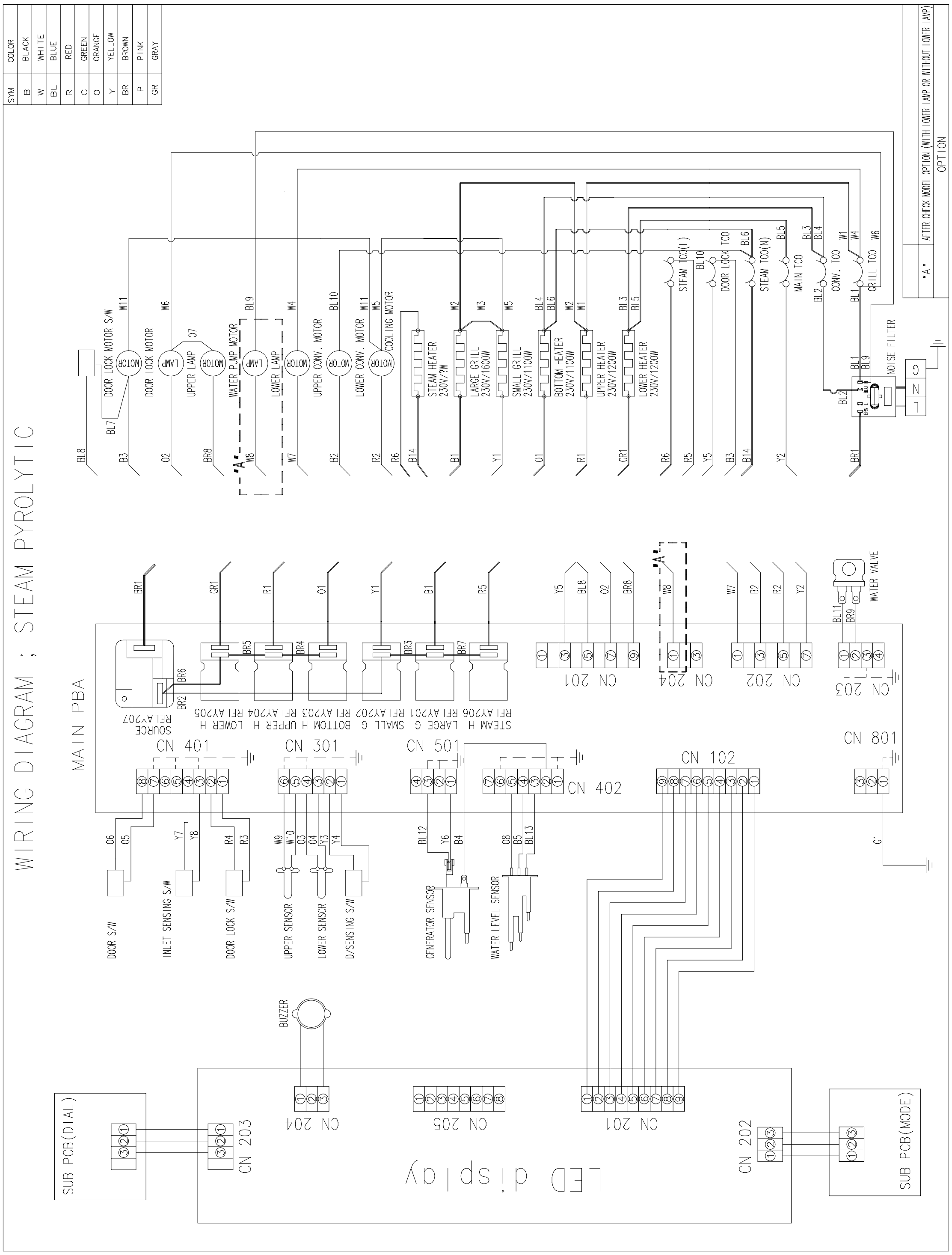
6-1 PCB Diagram



No.	Parts Number	Part Name	Function and Rule	No.	Parts Number	Part Name	Function and Rule
1	CN101	Display connector-1	A Terminal for Connecting with display module.	12	RY104	Upper heater Relay	A relay for Connecting with Upper heater
2	CN102	Display connector-2	A Terminal for Connecting with display module.	13	RY105	Lower heater Relay	A relay for Connecting with Lower heater
3	CN103	Temp sensor & divider switch connector	A Terminal for Connecting with divider and temp sensor.	14	RY106	Latch open Relay	Latch open control
4	CN104	Buzzer	A Terminal for Connecting with speaker.	15	RY107	Latch close Relay	Latch close control
5	CN105	Door Lock motor connector	A Terminal for Connecting with Door Lock motor.	16	RY108	Uppwe lamp Relay	Uppwe lamp control
6	CN106	Neutral , upper/lower lamp	A Terminal for Connecting with Neutral,upper/lower lamp.	17	RY109	Lower lamp Relay	Lower lamp control
7	CN107	Spit , Upper/lower fan , Cooling fan	A Terminal for Connecting with Spit , Upper/lower fan , Cooling fan.	18	RY111	Spit Relay	Spit Source
8	CN108	Door latch , Door sensing	A Terminal for Connecting with Door latch , Door sensing	19	RY112	Source Relay	Supply power for all relay
9	RY101	Large grill Relay	A relay for Connecting with Large grill heater	20	SSR101	Upper fan SSR	Upper fan control
10	RY102	Small grill Relay	A relay for Connecting with Small grill heater	21	SSR102	Lower fan SSR	Lower fan control
11	RY103	Bottom heater Relay	A relay for Connecting with Bottom heater	22	SSR103	Cooling fan SSR	Cooling fan control

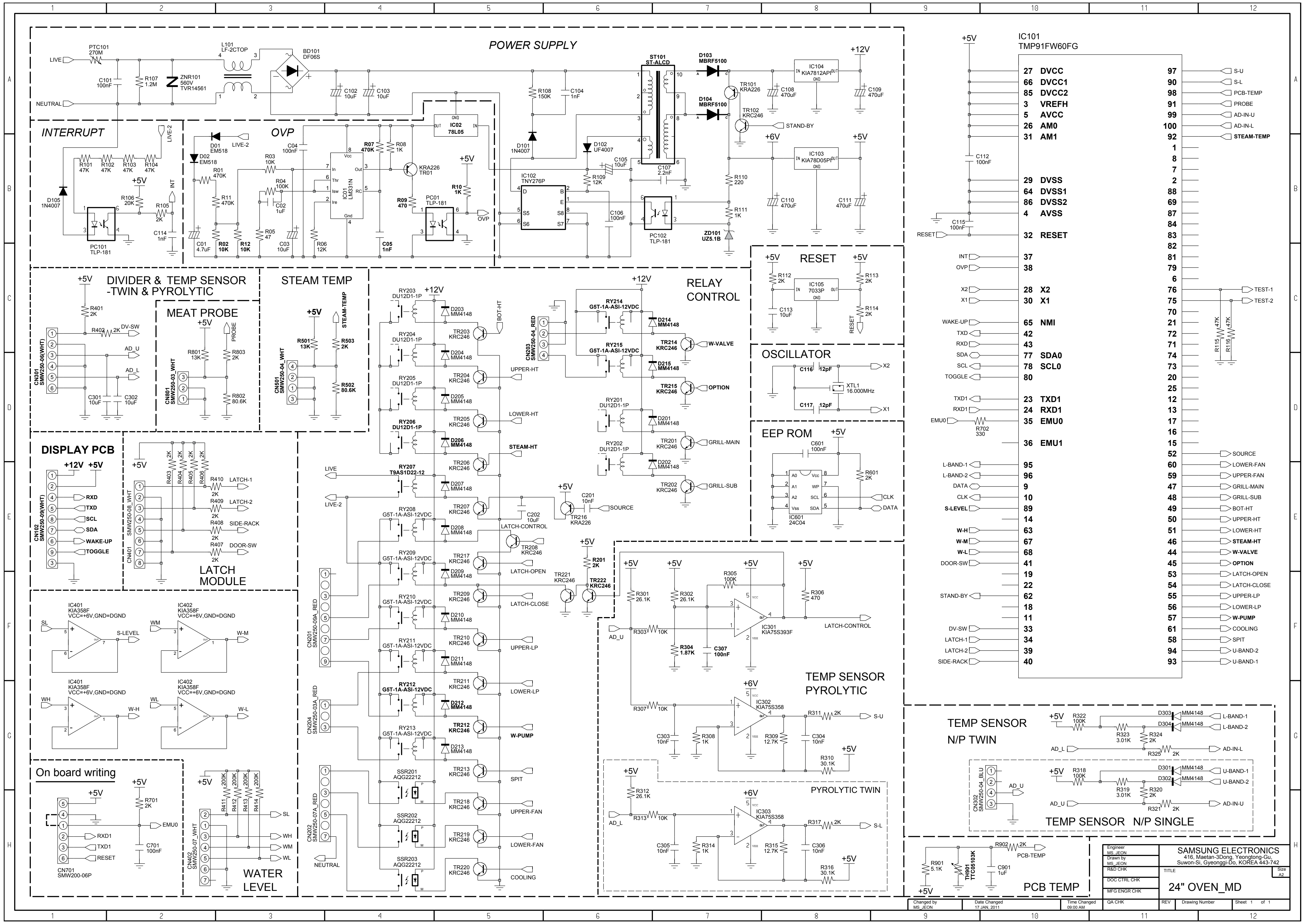
7. Wiring Diagram (This Document can not be used without Samsung's authorization.)

7-1 Wiring Diagram



8. Schematic Diagram

8-1 Schematic Diagram



GSPN (Global Service Partner Network)

Contry	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com